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The Morality of Social Movements

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Abstract

Understanding a normative concept like oppression requires attention to not only its harms but also the causes of those harms. In other words, a complete understanding of such a concept requires a proper causal explanation. This causal explanation can also inform and constrain our moral response to such harms. Therefore, the conceptual explanatory framework that we use to inform our moral diagnosis and our moral response becomes significant. The first goal of this dissertation is to propose complexity theory as the proper framework for not only explaining a social phenomenon like oppression but also understanding the proper sites for social change. The second goal of this dissertation is to answer three interrelated questions about how we should respond, morally, to a chronic and complex social problem like racial or gender inequality: (1) Why do the current interventions to address these problems fail? (2) Do social movements play any unique role in addressing these problems? (3) What is our individual responsibility to participate in social movements? In response, I argue that the explanatory frameworks that we choose to understand the cause(s) of social problems can be the source of the inadequacy of our intervention. I argue that a proper social and moral intervention needs to capture the complex and dynamic nature of the social world. I also show that changing the explanatory framework allows us to see the unique role social movements play in making effective and sustainable social change possible. Finally, I conclude supporting such movements is a moral imperative.

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Chapter One: Social Inequality and Frameworks of Explanation

1. Introduction

Ask any American who is racialized as Black and they will likely have many stories of harassment, discrimination, maltreatment, and unjust harm that would not have taken place if they were not Black. There are books, movies, articles, movements, and personal anecdotes that make it almost impossible to ignore these stories. The sad truth about the stories is that none of us knows what exactly we ought to do to stop them from happening; however, we feel the pain and urgency for action. In her book, *The New Jim Crow*, Michelle Alexander relates an abundance of stories in which individuals are unjustly harmed, and the best explanation has to do with their race. In one of these stories, she invites us to put ourselves in Clifford Runoalds' shoes. He is an African American victim of policies that exist in a society in which being regarded as dangerous is dangerous and some people are regarded as dangerous no matter what they do. The policies that Alexander refers to in this story enable the police to seize the belongings of people accused of drug crimes. However, reclaiming their belongings requires resources that poor people simply do not have.

... place yourself in the shoes of Clifford Runoalds, another African American victim of the Hearne drug bust. You returned home to Bryan, Texas, to attend the funeral of your eighteen-month-old daughter. Before the funeral services begin, the police show up and handcuff you. You beg the officers to let you take one last look at your daughter before she is buried. The police refuse. You are told by prosecutors that you are needed to testify against one of the defendants in a recent drug bust. You deny witnessing any drug transaction; you don't know what they are talking about. Because of your refusal to cooperate, you are indicted on felony charges. After a month of being held in jail, the

charges against you are dropped. You are technically free, but as a result of your arrest and period of incarceration, you lose your job, your apartment, your furniture, and your car. Not to mention the chance to say good-bye to your baby girl (Alexander, 2010, p. 98).

Alexander aims to challenge the idea that we live in a “post-racial” society by pointing out how the lives of people of color are negatively affected by criminal justice policy and how endorsing the “post-racial” idea belittles the harm and injustice that they bear. Tommie Shelby (2014) distinguishes four ways of defining a post-racial society. First, a society is post-racial when the concept of race is viewed as empirically unsound and incoherent (Appiah, 1990). Second, it can also refer to a society in which racial differences are not a legitimate basis for treating people differently even to support and strengthen the disadvantaged (Wasserstrom, 1976). Third, a society in which racism ceased to negatively impact people’s lives is another way of understanding a post-racial society. And finally, and ironically, a society in which charges of racism might not be worth taking seriously can be taken as post-racial (Shelby, 2014).

Alexander and many others¹ bring our attention to the fact that even if the dominant scientific method does not allow for a concept like race or racism, and although many believe that we live in a post-racial society, race and racism have tangible causal power that negatively impacts people’s lives. They emphasize the detrimental effects of race and racism to argue that we ought to do something to mitigate these effects. This obligation, however, is not diminished by the fact that “race” as we know it might not exist at all and the “social fiction of race defies rigorous definition” (Roediger, 2001, p. 325).

¹ See for example, Lebron (2017), Anderson (2010), Shelby (2014), Stanley (2015), and Mills (2017)

Conservative commentators² tend to explain away the claim of racial inequality by arguing that the claimed instances of racial inequality are in fact not related to race and that even if they are, the cause is not racism. To back this claim up, they concede that white racism was the reason for black disadvantage before the Civil Rights Movement. However, they claim that Civil Rights legislation and New Deal programs removed the structural barriers for Blacks. Thus, the background condition for everyone is just and equal. Any residual disadvantage is either attributable to individual attributes and behavior, or due to pathologies internal to Black communities (Young, 2011).

Three interrelated lines of argument are recognizable in the approach that conservative commentators have taken so far. The first argument is that there is no such thing as racial disadvantage. The second argument is that if there is such a disadvantage or discrimination, it is the fault of Black individuals or Black communities. The third argument is that “we”—Whites or non-Black individuals or communities—do not have any responsibility to help victims of racial disadvantage and discrimination. However, individuals’ testimony and empirical evidence shows that racial disadvantage and inequality are real. Such disadvantages and inequalities are not the fault of Black individuals or communities. And the choice not to help is often a result of racist motives, and even where such motives are not present, it is arguably a serious moral failing that perpetuates racist harms.³ In fact, denials of racial inequality and racist discrimination have a sociopolitical function. These denials mark “social boundaries and reaffirm social and ethnic identities” (van Dijk, 2001, p. 310). The members of the dominant groups use such denials to further establish the moral superiority of their own groups.

² There are a variety of examples for such commentators, but ones addressed in this literature are Mead (1986) and Murray (1984).

³ Of course, racism and its problems are not limited to black-white racial tensions. However, I focus on the black-white issue as the most obvious one.

The central goal of this dissertation is to show that for some social problems social movements are necessary for social change and that individuals have a responsibility to support such movements. In the remainder of this chapter, I motivate the project by discussing the two conservative or “skeptical” arguments just mentioned to highlight the limitations of the traditional explanatory frameworks in addressing chronic and complex social problems. I argue that there is a need for a paradigm shift in the framing of the problem to an alternative that does not require a well-defined notion of race, culture, or community, yet allows us to explain racial and other forms of inequality. I propose a new framing that focuses on the complex and dynamic nature of social problems even when they seem stagnant.

The remaining chapters of this project flesh out my proposed new framework. I start with the limitations of the alternative frameworks of explanation. Then, I argue that my proposed complexity framework resolves such problems and allows us to conceptualize groups as a heterogenous and fluid cluster of social interactions. I also show that the complexity framework can explain durable inequalities and guide our moral response to address them. I conclude that my alternative framework explains why social movements are necessary to address chronic, complex, and persistent social problems. I use this conclusion to further argue that supporting such movements is a moral imperative. At the end of this Introduction, I offer a precis of the five-central chapter of this project and what each contributes to my overall argument. But for now, let us turn to the debate over the causes of racial inequality.

2. It Is Not About Race: The First Skeptical Argument

In her book, *The Imperative of Integration*, Elizabeth Anderson (2010) gathers a wealth of empirical studies to show that not only are racial discrimination and inequality alive and well, but they affect all the major objective measures of well-being. For example, in the United States, the life expectancy of the Black population has always been lower than average when we control

for income (Arias, 2007). The Black infant mortality rate and the rate of death from diseases like asthma, kidney disease, diabetes, and infectious diseases, as well as heart disease and cancer, are much higher than whites (Mathews & MacDorman, 2008). Since the 1960s, the poverty rate of Black communities has been steadily three times higher than that of non-Hispanic whites (DeNavas-Wait, Proctor, & Smith, 2008). One third of black children, compared to one tenth of white children, will experience poverty for more than ten years (Corcoran, 2001). The median household income for Black families is two thirds of whites, a ratio that is larger than it was in 1967 (DeNavas-Wait, Proctor, & Smith, 2008). Compared to middle-class white parents, Black parents from the same class are less likely to transfer their class status to their children (Gouskova & Stafford, 2007).

Anderson traces some of these problems to unequal employment, unequal education, less protection from the state, and the weaker public standing of Black communities. The Black unemployment rate is double that of whites and has been so for decades (Williams & Chiquita, 2001). Black children enter schools with lower reading and mathematics skills and fall behind white counterparts who have the same initial scores in those skills (Laird, Kienzl, & DeBell, 2007). Black youth are twice as likely as white youth to drop out of school (Laird, Kienzl, & DeBell, 2007). Moreover, they are less protected by the state and police force and subject to higher rates of criminal punishment compared to whites (West & Sabol, 2009). In fact, the lifetime chance of a Black man being imprisoned is four times that of a white man, a situation that has worsened since the 1970s due to punitive criminal justice policies (Western & Wildeman, 2009). And finally, it is important to remember that these inequalities do not only affect the incarcerated or high school-dropouts. White Americans stereotype Blacks as “lazy,

stupid, ignorant, violent, and criminal” (Anderson, 2010, p.25).⁴ Their tendency to explain the inferior material conditions of Blacks by positing their personal, cultural, or biological inferiority reinforces Blacks’ marginalization and isolation from the rest of the society and multiplies their disadvantages (Anderson, 2000).

Other than material inequality, the mere experience of discrimination has negative effects on well-being. There are abundant studies that show a strong relationship between the chronic experience of discrimination and health. For example, Dole et al. (2004) and Collins et al. (2004) point to an increased risk of premature birth among women who report a chronic experience of discrimination in the workplace or in other social interactions. This effect is, of course, present for all marginalized racial and ethnic groups. A recent study emphasizes the change in the rate of premature birth for Arabic-named women in California after September 11th, 2001 (Lauderdale, 2006). The consensus in these studies is that after controlling for all other factors like biological, cultural, and environmental differences, the mere experience of unjust treatment due to group membership universally affects health.

Racial discrimination and disadvantage exist, and the problem is urgent and severe. The common conclusion among studies in the literature on racial inequality and disadvantage is that race as a category seems to have a causal role that brings about the phenomenon that is the focus of study. For instance, when controlling for the type of crime that is the only relevant factor in ascribing punishment, Black men receive harsher sentences (Alexander, 2010). In other words, the way that people are perceived and grouped together in the society by racial categories changes their well-being, their life expectancy, the way they are treated, and the way they are punished. It is important to point out that this kind of grouping is life-threatening and dangerous,

⁴ For more in dept analysis of such stereotyping also see Fiske (1998).

so it is appropriate for the victims to claim that they have been seriously wronged and for bystanders or the rest of the community to act with urgency.

3. It Is Their Responsibility: The Second Skeptical Argument

If recognizing the problem that racial discrimination and disadvantage are still common in the United States is the first step to mitigating the problem, the second step is recognizing the cause of the problem and who should be responsible for it. One side of the debate around the cause of the problem argues that individuals, their behavior, and their attributes create racial inequality. And since each of us is responsible for our own conditions, victims of racial inequality should be held morally responsible for the actions and decisions that lead to their disadvantage. This argument relies on the assumption that making individuals responsible gives them incentives to change their situation. For most people who agree with this argument, the main reason to care about disadvantaged people is the negative effect of their irresponsible behavior on the rest of us. However, the other side of the debate relies on the background conditions, structural injustices, and things outside of individuals' control to explain the cause of the problem. They argue that it is unfair and unjust to hold the victims responsible for something that is beyond their control.

In her book, *Responsibility for Justice*, Iris Marion Young discusses an influential debate over the cause of inequality. She elaborates the position of two eminent conservative welfare policy theorists, Charles Murray (1984) and Lawrence Mead (2006), who ridicule the so called "sociological" approach to explaining poverty (Young, 2012). They argue that this approach relies on the environment and structural social processes to explain why the lives of poor and disadvantaged people are insecure and difficult. For example, Mead states that "the poor and disadvantaged were understood to be so conditioned by their environment that to expect better functioning from them, such as work, became almost inconceivable. The responsibility for their

difficulties, even behavioral ones, was transferred entirely to government and society” (Mead, 1986, p. 55). Thus, according to Mead the sociological approach makes the mistake of identifying the hostile environment as the cause of the problem instead of the problematic behavior of poor and disadvantaged people.

Mead, Murray, and other conservative commentators argue that we should hold the individuals responsible for their disadvantage since they are themselves the cause of their problem. They argue that the “deterministic” approach of structural explanations dismisses the individuals’ role and agency in their circumstances. Young, however, argues that this argument—which influenced the dominant approach to welfare policy—relies on two mistaken assumptions: first, that the background conditions are just, and second, that either the structural reality or the individual is responsible for the problem, not both. She states that “it is disingenuous to suggest that persons living in neighborhoods with poor schools, few stores, and dilapidated housing, miles away from the closest job opportunities, have an equal opportunity with other persons in the same metropolitan area” (Young, 2011, p. 11). Thus, she argues against the assumption that everyone’s background conditions are just.

According to Young, our society fails to provide equal opportunity for people from different races or socioeconomic backgrounds. Moreover, she argues against a dichotomy between the individual and structural responsibility for an explanation of inequality. Young argues that while granting the individual responsibility in choosing wisely among their salient options, the structure of society still constrains the available options for different people in different groups. The individual and structural factors are both necessary to explain and to remedy the problem of inequality and disadvantage.

The assumption that we live in a post-racial or an “equal opportunity society” leads to the false conclusion that the personal attributes of individuals are at fault. The advocates of this conclusion argue that needy people who depend on public support refuse to work or acquire skills when they can, also that they have babies out of wedlock when they are young, demonstrating lack of respect for family values (Young, 2011). They also argue that this proportionally small and deviant group needs to be given some incentives since their irresponsibility brings costs to the rest of us. However, this rhetoric, Young argues, encourages an individualistic approach to responsibility that defines responsibility as independence. It is individualistic because the unit of responsibility is the individual and not the society or a group of people. It also undermines relationships among individuals. The biggest unit of responsibility in this account is the family, since children are necessarily dependent on their parents, but nothing beyond that unit can be either the cause of the individual’s problem or held responsible to undo the harm. Moreover, on this view, someone dependent on public assistance is by definition irresponsible and not being dependent on it is sufficient to be responsible. In other words, someone is irresponsible if and only if she is independent of others.

Young points out that the individualistic account of responsibility implies that poor and disadvantaged people are, by definition, irresponsible. However, she argues against the identity relationship between irresponsibility and poverty and the idea that personal attributes, like character traits, are the cause of poverty and disadvantage. Young argues that since a majority of Americans at some point in their life live below the poverty line, we cannot separate poor people from others “based on their character traits, dispositions, or failings that they have” (Young, 2011). Moreover, she points out that people from all socioeconomic classes make mistakes and act irresponsibly. In fact, the irresponsible behavior of people in power who have money usually

has a stronger negative impact on society. Therefore, she concludes that character traits and dispositions cannot be the only causes of disadvantage. If neither the character traits nor the personal choices of the individual are sufficient to explain their disadvantage, then it is necessary to use structural elements to explain the problem.

Some conservative commentators locate the cause of the problem in the culture of Black communities, and they believe that individuals should be held responsible for endorsing elements of this culture. However, Elizabeth Anderson, in her book, *The Imperative of Integration*, argues that it is the particular framing of the concept of culture that leads to this idea and that there are moral and explanatory reasons to avoid such a framework. She acknowledges the intuition that there are some common dysfunctional behaviors in some Black communities.

Conservatives are not wrong to point to numerous imprudent and harmful activities by blacks in “underclass” communities—especially, involvement in gangs and crime, the dominance of single-parent families, often started by financially insecure youth in unstable relationships, and poor school work—as important proximate causes of black disadvantage. If poor blacks would stay out of trouble, delay child birthing until they are financially secure and committed to raising their children with their partners, and study diligently until graduating from high school, then, their children, and their neighbors would be much better off. (Anderson, 2010, p. 75)

However, she argues that even if a group of people habitually engages in these self-destructive behaviors, this does not mean that the community should bear the cost without outside help. Abandoning them is morally reprehensible since there are innocents, including children and people without the destructive behavior of the community, who have to bear the lethal consequence of others’ bad behavior.

Anderson emphasizes that the framework in which we embed the self-undermining behavior within the Black community affects our moral response. Thus, we need to be aware of the framework that we choose. According to Anderson, the collective behavior of a community is usually understood as “culture,” which in the folk anthropological framework, is the immediate expression of a community’s shared values. In this framework, culture is a “sui generis, autonomous product of a distinctive, self-contained, community” (Anderson, 2010, p. 78). However, she argues for an “economic” framework in which culture is “the equilibrium of individual strategic responses to each other’s conduct, within the constraints of their resources and opportunities” (Anderson, 2010, p. 78). In this alternative framework, individuals can be members of more than one community, and each community has flexible boundaries.

The folk anthropological framework leads to two moral responses that differ depending on background assumptions. If based on egalitarian assumptions, the anthropological framework of culture leans to a celebration of diversity, a tendency to allow each community to live in accordance with its own cultural norms, and allowance of self-segregationist impulses for cultural preservation against outside influence. However, with inegalitarian assumptions, such a framework allows hostility toward integration with others except when others assimilate with one’s own culture and supports disdain and alienation from groups to which one does not belong. Moreover, it “holds the segregated groups wholly responsible for advantage or disadvantage accruing to their cultures, to evaluate cultural differences moralistically, on a single scale value—as “pathological” or “worthy,” “savage” or “civilized”—and to neglect the causal importance of intergroup relations on outcomes for each group” (Anderson, 2010, p. 82).

The “economic” approach, however, defines culture as a set of instrumentally valuable behavioral resources. According to this approach to culture, environmental contingencies and

interaction among individuals create a set of strategies that can be used to coordinate expectations and actions. Thus, this approach is neither limited to nor undermines personal taste and decisions. In successive rounds of interaction with others and with the environment, individuals come up with strategies that work best for them by adjusting them in response to payoffs they have experienced in previous rounds until they reach an equilibrium. Hence, instead of a linear atemporal aggregate of personal beliefs or values that are dominant in a community, the economic approach relies on a dynamic and complex model of strategies to define culture.

The economic approach to culture is not usually favored among moral and social philosophers. This approach to culture and cultural norms has been criticized for its overly rationalistic, instrumental, and egoistic presumptions about individuals and their motives. There is a consensus that norms survive only when people accept them non-strategically as valid standard of conduct (Haidt, 2012) (Anderson, 2000). A better understanding of norms then needs to “incorporate the effects of cognitive, motivational, and behavioral biases and consider what they mean to the agents that follow them” (Anderson, 2010, p. 214). However, the model’s shortcomings do not imply that we need to reject the model altogether (Anderson, 2010). The most interesting and relevant features of this model are its dynamic nature and complexity that free us from the problems of traditional models. Moreover, for the economic model to serve the purpose that Anderson has in mind, individuals do not have to be consciously aware of the instrumentality of their strategies. Also, the model creates space for altruistic and seemingly irrational motivations.

Anderson (2010) relies on the economic model to show that it is not individual’s taste in values that determines the cultural norms one endorses. Rather, if we only take into account universal human needs, the economic model can explain why people conform to dysfunctional

norms. In addition to a background of universal needs, this model considers relationships among individuals within and between groups as well as the pattern of their interactions with others. Moreover, it takes into consideration the available opportunities for and constraints on individuals and communities. According to this model, “The frequency of a behavioral strategy in a population is a function of its payoffs, which are largely determined by how many individuals adopt it and rival strategies in interacting with one another” (Anderson, 2010, p. 78). Thus, culture in this account is adaptable, tradable, alienable, and mobile (Anderson, 2010).

The economic account implies that a common humanity and pragmatic orientation create what we understand as culture. Thus, the claims of “authenticity” and “purity” of cultures and any inherent advantages of one culture over another are absurd. This account is also open to differences within groups since the state of equilibrium in strategies can contain different proportions of people adopting different strategies. Thus, stereotyping and stigmatization is discouraged in this account due to their inaccuracy and redundancy. Finally, the economic account explains how some groups can be trapped in collectively dysfunctional norms and what the possible ways out of such a state are. Empirical studies as well as simulations show the futility of exhorting individuals to change their strategies when everything else in their environment confirms that their strategy works the best.

According to the economic account of culture, poverty alone is not enough to create dysfunctional collective behavior. Concentrated disadvantage for a group of people in terms of high levels of chronic unemployment, deprivation of public goods, and isolation from groups with cultural and social capital is also necessary to explain the existence of self-destructive norms (Wilson, 2009). “Cultural capital” refers to cultural habits that help individuals succeed in their school, work, and community. Individuals develop these habits together in the course of

their adaptation to their environment. Segregation, however, causes differences in codes of conduct and communication that hold individuals back from succeeding in an integrated and more advantaged environment if they are only adapted to the segregated and disadvantaged communities. “Social capital” refers to a network of people in social relationships that serves as a resource for individual and collective action by providing information channels, supporting cooperation and reciprocity, and sustaining other norms that coordinate people’s behavior (Coleman, 1988). In sum, dysfunctional behavior is a result of highly constrained options and lack of access to better strategies rather than of bad values or bad taste.

Cultural norms that are in fact dysfunctional may be the only feasible option for members of a deprived community. In a neighborhood with an alarmingly low level of social and cultural capital, the only person a young mother can love may be her own child. Thus, becoming a single mother looks like an attractive option when the pool of men with steady employment and without criminal backgrounds or drug problems is very small (Wilson, 1987). Also, when the cost of encountering violence is high in a neighborhood and relying on police does not seem to be a viable option, being responsible for protecting oneself may mean that one needs to be ready to act violently and adapt an appearance that communicates that capability to others. In such a neighborhood, civility can be a sign of weakness and invitation for criminals to abuse one. The most plausible option in this situation is to hide behind a mask of aggression (Anderson, 1999). In other words, people in such communities are trapped in a highly unfavorable equilibrium.

The economic approach to culture provides a response to the claim that the culture of Black communities is responsible for the racial inequality and disadvantage affecting them. In the economic framework, culture emerges from the interaction of individuals who try to make the best of their resources to satisfy their needs. According to this framework, segregation and

marginalization play a much more significant role than the decisions of individuals. Without segregation and its consequences, like a high level of chronic unemployment and lack of access to public resources or jobs, inner city residents, for instance, would have better options to choose from and construct better strategies to deal with their problems. Thus, the agents who enforce segregation or benefit from it should hold at least some responsibility. Moreover, it is important to remember that the members of these communities have to pay a high price regardless of what their decisions are. If they stay committed to norms of civility, they are vulnerable to criminals who dominate their neighborhood. If they don't commit to those norms, they will be punished, incarcerated, and taken away from their children and family. Thus, it seems unfair and futile to hold them entirely responsible for their actions or for the culture they live in.

Moving away from a framework that views each culture as the autonomous creator of its norms, namely the folk anthropological account of culture, enables us to see what is wrong with an approach that considers the culture of Black communities to be the only problem. It takes much more than the will of individuals who are trapped in dysfunctional cultural norms to change them. Thus, it is patently unfair to expect the individuals who are the most vulnerable to these norms and who have the least amount of resources to be the prime instruments of reform. Instead, as the economic framework posits, it is right to recognize involvement in gangs and crime, poor school work, and dominance of single parent and/or unstable families as influential factors of Black disadvantage. However, these factors on their own are still insufficient to explain the existence of the problem nor can they alone determine what we can do to solve it. A more comprehensive account of culture implies that “no one escapes substantive responsibility for remedying the problems of disadvantages” (Anderson, 2010, p. 84).

In sum, in response to the influence of structural norms, conservative commentators have had two main arguments, one moral and the other causal. The moral argument is that relying on external causes to explain Black disadvantage fails to hold individuals responsible for their behavior or give them incentives to change. This failure reinforces what in fact is the cause of Black disadvantage. However, recognizing the dysfunctional behavior of individuals, as discussed before, does not imply that no one else is responsible for its existence. And the causal argument is that since other racial groups, like Asian immigrants, overcame their difficulties despite their disadvantaged background, the only possible explanation for persisting black disadvantage can be defective Black cultural values. However, Blacks and Asian immigrants are similarly situated neither in economic circumstances nor in their interaction with whites (Hollinger, 2005). Moreover, the dysfunctional values of the “ghettos” that conservatives refer to only came into existence after the unemployment rate increased in the United States (Wilson, 1996). Finally, the same dysfunctional norms tend to appear in any community that experiences high unemployment in advanced capitalist economies, regardless of its race (Lyll, 2007).

The framing of the problem, then, is at fault. Anderson argues that the reaction of conservative commentators is unsurprising since “When dysfunctional behaviors of the disadvantaged are represented as the autonomous product of alien, pathological cultures, value systems, and identities, the advantaged are likely to respond with neglect at best and punitive measures at worst” (Anderson, 2010). The economic model grants that individuals have a role to play, and that they might choose dysfunctional behaviors and norms. However, it allows for external elements like segregation to be a part of the problem. In this account, victims are not only those harmed by crime, but also those who are forced to live in an environment in which fear and distrust are prevalent. These latter victims lose their social and cultural capital and have

to deal with the stigmatization of their race and social group. Finally, the economic account explains why it is unjust and futile to ask individuals to act cooperatively when they are intimidated into self-defense.

4. Complex and Dynamic Models and Social Explanation

So far, I have discussed the problem of racial discrimination and inequality and engaged with a debate that challenges its very existence of such inequalities. These challenges aim to undermine the legitimacy of the victims and their standing to make moral claims (Carbonell, 2017). Some argue that racism and racial inequality belong to the past and that no one's life is negatively affected by them (Bobo, 2011). Thus, they argue, antiracist movements at any level are redundant and counterproductive. They consider the claim of racism to be empty rhetoric with the purpose of extracting "guilt from Whites and, through this, so called special treatment from government for victim-minded racial minorities" (Shelby, 2014). Blacks are accused of "playing the race card" as a method of extortion and an excuse for their irresponsible behavior (Ford, 2008).

I distinguished three interrelated arguments in the debate about racial inequality and discussed two of them in more detail. The first argument denies the factual claim that racial inequality and discrimination exist, and the second holds Black individuals and communities responsible for being disadvantaged. The common core of both these arguments is the ontological and methodological commitments that allows dismissing claims of injustice when it is not easily traceable in the immediate actions of individuals. For instance, the justification for grouping individuals based on the color of their skin or some other shared feature is the point of contention for denying racial inequality. In Chapter 2, I discuss such a grouping justification problem and its methodological implications.

Showing that individuals can bear systematic harms in virtue of their group membership is necessary for explaining social inequalities and injustices. However, there are nuances that need to be addressed. For example, individuals simultaneously experience different forms of injustice because of their membership in various groups (see for example Crenshaw, 1989; Young, 1988; Walby, 2007). Moreover, as many Black and “Third World” feminist scholars argue, groups are not best represented by the experience of their average member (Mohanty, 1988). Therefore, attending to the interconnectedness of individuals and their groups is necessary to provide a proper explanation for their experiences. Failing to acknowledge such interconnection leads to descriptive and normative problems.

Not only the explanation of racial inequality, but also its moral analysis calls for consideration of emergent properties. I discussed Young’s objection to the individualistic account of responsibility that fails to see the role of higher level, structural features of society that constrain an individual’s options. I also discussed Anderson’s argument about framing the problem in a way that fails to see the dynamic nature of culture and the undefined boundary of communities. Anderson agrees with Young that limiting the scope of explanation to the individuals prevents us from explaining the existence of the problem and from recognizing who is responsible for it. Moreover, Anderson argues that merely bringing in some higher-level features, like culture, can be insufficient. She discusses the shortcomings of the folk anthropological framework of culture mixed with inegalitarian assumptions in the analysis of the morally relevant features of racial disadvantage.

Some technical terms in this debate need further explanation. I start with a strong form of methodological individualism, atomism, which indicates that an agent who is and always has been isolated from others is nevertheless capable, in principle, of displaying all distinctive

human capacities. The objection to methodological individualism, holism, however, argues for a connection between enjoying social relations with others and exercising certain distinctive human capacities. The main idea is that “living in society is a necessary condition of the development of rationality, in some sense of this property, or of becoming a moral agent in the full sense of the term, or of becoming a fully responsible, autonomous being” (Taylor, 1975, p. 191). Thus, holism objects to discussing an individual and her problems without addressing the influence of others, the history of that influence, etc.

The individualism/holism distinction is about the issue of how far people depend on their relations with one another for the enjoyment of proper human capacities. Pettit (2007) calls this issue a horizontal one since the relations in question are collateral and among people. He distinguishes this issue of how far people depend on their relations from the distinction between social individualism and collectivism that is vertical and is about how far the autonomy of people is compromised from the above by “aggregate social forces and regularities” (Pettit, 2007). Individualism denies the existence of any compromise while collectivists believe that we are controlled and constrained in a way that diminishes our agency. Individualists and holists, however, conform to a folk psychological account of autonomy and agency while arguing about the extent to which human capacities require social relations.

Individualists believe that the isolated individual can give a relevant perspective on what is a good social or political arrangement. In a similar way, philosophers of science and scientists have traditionally thought that an isolated cell and its anatomy can give us what we need to know about how a network of cells works. The failure of this approach in science leads to two important debates (Bechtel & Richardson, 1993). The first debate focuses on the importance of the relationship between the parts (neurons), and the second is about the explanatory role that the

collective features of the parts can play. These collective features, also known as higher level properties, seem not to be easily reducible to a linear aggregation of the features of the parts. Thus, the isolated individuals, although necessary, are insufficient to explain how an organism works. However, the relationship between higher level and lower level facts might not be easy to determine.

Many philosophers have engaged in the debate about the relationship between the higher and lower level features (see Churchland, 1985; Craver & Bechtel, 2007; Fodor, 1974; Kim, 1999; Nagel, 1961; and Wimsatt, 2000). The debate revolves around the articulation of how the properties, activities, and interrelations of lower level elements lead to a higher level or systemic phenomenon. This debate is especially important in the philosophy of mind and philosophy of cognitive science in which the question is how neural activity can lead to psychological experiences or what elements need to be considered to explain how psychological experiences or intelligent interactions with the environment emerge.

The relationship between micro-level elements and macro-level events as a philosophical problem has been discussed in many fields, including sociology, which focuses on the relationship between individuals and social collectives. In fact, drawing inferences from the higher-lower level discussion in the philosophy of mind and philosophy of biology and applying them to the micro-macro relationship in social sciences is a particularly popular move (Kincaid, 1986, 1996; List & Spiekermann, 2013; Sawyer, 2001; Sawyer, 2002, 2003; and Vromen, 2010). For example, in support of the application of the debate to social sciences, Sawyer states that “although philosophical arguments about emergence and reducibility have focused on the mind-brain relation, they can be generalized to apply to any hierarchically ordered sets of properties” (Sawyer, 2001, p. 65).

In Chapter 3, I argue first that higher level (macro) properties are necessary to enable discussion of racial disadvantage and explanation of the problem's cause. Moreover, to remedy the problem, we need to talk about relationships, contexts, history, etc. I conclude that an individualistic approach that does not allow for any intervention of the higher level forces is explanatorily insufficient and morally inadequate. Second, I argue that the alternative approach that is used by scholars who endorse a collective and holistic account is also problematic. I criticize the dominance of the functionalist approach in what social philosophers call structural explanation (see Haslanger, 2003, 2016, 2017; Jackson & Pettit, 1992; and List & Spiekermann, 2013).

I discuss the insufficiency of the structural/functional approach on three grounds: descriptive, normative, and practical. I argue that the functional approach is descriptively insufficient since it assumes a set of temporally linear and modular functions that are almost non-existent in a socially complex problem like racial inequality. This approach is normatively problematic since assuming a unit with a certain function that causes the problem implies that the morally appropriate response must target that unit. However, the most, or the only, effective response might not have to do with the problem at all. For instance, conservative commentators argue that the culture of Black communities is the cause of their disadvantage while the unemployment rate may be the variable that we ought to change in order to effectively remedy the problem. Finally, the functional approach has proved to be practically insufficient in the discussion about race since it has led to policies that have failed to see the interconnectedness of individuals, their expectations, and their resistance to change. Many of these policies have been futile or caused backlash, and in some cases, they have worsened racial inequality.

5. Complexity Theory and Social Change

My arguments in Chapters 4 and 5 rely on a similar discussion in philosophy of science:

I suggest an alternative account of explanation that is derived from complex dynamical systems theory. I discuss the implications of this account for social inequalities related to race and gender. This account captures the essence of the economic frame of culture. I defend this account of explanation and its use in the conversation about social inequalities on descriptive and normative grounds. I discuss the explanatory and predictive power and limitation of this model.

The aim of Chapter 4 is to suggest an alternative explanatory framework for not only a social phenomenon like oppression and social inequalities but also for understanding the proper sites for social change. I argue that chronic and complex social problems like racial and gender inequality have the key characteristics of complex and dynamical systems. I conclude that the best approach to understanding such problems is complexity theory. I further show that dismissing the complex and dynamic nature of such problems misguides our collective moral response to them.

In Chapter 5, I use complexity theory to make a rather controversial claim: that participating in social movements is a moral imperative. I argue that participating in social movements is the proper moral response to oppression. I first show that the traditional approaches to explaining oppression and social progress are unhelpful and that their emphasis on equilibrium states in social theorizing leads to moral paralysis. As an example of such a paralysis, I use Manne's systems approach to misogyny and patriarchy. I show that her approach leads to a moral dilemma when it comes to resisting oppression and fighting for social change. I argue that a paradigm shift in our theory of explanation towards complexity theory can (1) resolve the dilemma, (2) explain the role of social movements in social change, and (3) show that

in response to the harms of oppression, participating in a social movement is the only morally plausible options.

Chapter Two: Problems with Holistic Social Explanation

“What is considered theory in the dominant academic community is not necessarily what counts as theory for women-of-color. Theory produces effects that change people and the way they perceive the world. Thus we need teorías that will enable us to interpret what happens in the world, that will explain how and why we relate to certain people in specific ways, that will reflect what goes on between inner, outer and peripheral ‘I’s within a person and between the personal ‘I’s and the collective ‘we’ of our ethnic communities.”

Gloria Anzaldúa, “Haciendo Teorias”, *Borderlands*, p. 25

1. Introduction

In her paper, “Five Faces of Oppression,” Iris Marion Young speaks of a need for a whole new mode of analysis in political discourse that enables individuals to make sense of their own social and political experiences. In particular, she uses insights from “socialists, radical feminists, American Indian activists, black activists, gay and lesbian activists, and others identifying with new left social movements of the 1960s and '70s” who see the shortcomings of individualistic frameworks in explaining or understanding experiences of oppression (Young I. M., *Five Faces of Oppression*, 1988, p. 270). Young makes two insightful claims that guide her analysis: first, that grouping individuals by race and/or gender carries more significance than grouping by some other individual features and second, that identifying the intentional actions by one or a few with centralized power is not necessary for explaining the existence and persistence of oppression. For Young, however, neither of these intuitions justifies believing that social groups are always homogenous and static.

According to the first intuition, grouping individuals based on race, gender, class, religion, and the like in explaining social inequalities carries more significance than some other shared attributes, like the model of car or favorite color. For instance, claims about being

working class involve information that goes beyond aggregating the characteristics of individuals who fall under a certain income bracket. Nor does being grouped as working class resemble a formal association of independently formed individuals who join a group. The difference, Young argues, is that some social groups maintain a mutual relationship with individuals. Young spells out a mutual dependency between individuals and groups that is a result of the *interdependence* and *malleability* of individuals and their attributes. Such interdependence and malleability is evident in a variety of ways in her explanation of oppression. For instance, when it comes to group identities, Young states that “a person’s identity is defined *in relation* to how others identify him or her, and they do so in terms of *groups* which always already have specific attributes, stereotypes, and norms associated with them, in reference to which a person’s identity will be formed” (Young, 1988, p. 274).

The idea of mutual dependency does not sit well with most dominant accounts of social explanation. If groups and individuals are mutually dependent, then contrary to the basic commitments of most individualistic explanatory frameworks, groups are distinct entities with causal relevance to social explanation. Thus, accepting the mutual dependence of individuals and groups has distinctive ontological and methodological implications. For instance, the idea that groups are distinct entities is an ontological deviation from any individualistic explanatory framework. Yet Young shows that we have good reason to tolerate such a deviation. She argues that explaining oppression requires us to recognize that not only do individuals constitute groups but, in a sense, groups also constitute individuals. In Young’s words, “A subject’s particular sense of history, sense of identity, affinity, and separateness, even the person’s mode of reasoning, evaluating, and expressing feeling are *constituted* at least partly by her or his group

affinities” (Young, 1988, p. 273).⁵ Groups that are mutually dependent on their individual members have “emergent” properties in its strong sense. Such groups are distinct from the aggregate of individual members because they have novel properties that are not identical with an aggregation of independent and inflexible attributes of generic individuals. I elaborate this strong form of emergence shortly.

Accepting a mutual dependence between individuals and groups also has methodological implications. It implies that groups and the description of their features can be relevant and even indispensable to the causal explanation of a social phenomenon. Therefore, grouping based on race, gender, and the like is not only justified but also necessary in some cases to explain social inequalities. Thus, it is no wonder that social inequalities seem like pseudo problems when we *categorically* dismiss information about group affiliations in social explanation. In fact, the causal relevance of group descriptions is an important point of departure for individualistic accounts of explanation.⁶ For instance, methodological individualists deny the legitimacy of such higher/group level causal explanation and any form of mutual dependence all together.

For methodological individualism, denying the relevance of group descriptions to causal explanation is a problem. In fact, the research strategies of methodological individualism are inapplicable to a wide range of macro social phenomena, such as power and economic crisis. However, the non-reductive alternative to methodological individualism does not fare any better. Non-reductive individualism remains committed to individuals as the primary causal actors in the social world but argues that sometimes group descriptions are necessary for causal

⁵ In a broader sense, individuals’ identities and even their cognitive and physical capacities are shaped by social practices. As McGeer (2019) puts it, “Human beings are able to acquire new cognitive capacities because our more basic capacities are open to being ‘augmented and transformed’ through the acquisition of communally share and enacted cultural practices” (p. 49). However, these cultural practices are normatively regulated in the sense that the tools or routes to acquiring some capacities. For instance, some of the practices are assumed to be “impossible” or “unnatural” for certain groups of people.

⁶ For instance, it distinguishes methodological and non-reductive explanation.

explanation. Non-reductive individualists' response to individualistic challenges has weaknesses that lead to downstream problems when applied to real-world issues. In this chapter, I discuss the weakness of such responses and use the broken window theory of policing as an example of such downstream problems.

2. Background

The debate between methodological individualism and holism in the philosophy of social sciences includes a variety of individualistic and holistic claims with very different ontological, epistemological, and explanatory commitments. Methodological individualism is the view that social entities/properties/explanations are reducible to individual-level counterparts. Holism is best understood as a response to this view. An important class of holist responses to methodological individualism takes issue with the reducibility of social to individual properties to show that social explanations are not reducible to individual explanations.

The holist idea is that if social properties are not identical to individual properties then they are indispensable from social explanation and, more importantly, they are causally effective. The challenge for these arguments is to show that social properties are causally effective without denying the metaphysical priority of the individuals in the social world. Thus, the arguments in favor of social explanatory holism or the causally effective social properties have two main tenets: supervenience individualism and the non-identity relationship between social and individual properties. Supervenience individualism is rarely contested in this particular debate. Negating the identity of social and individual properties (i.e., negating the “property identity thesis”) is often the focus of holistic arguments.

Since this literature involves a lot of jargon, let me lay out below the central terms and theses at issue in the following discussion, and their definitions.

Supervenience individualism: Individuals and their attributes exhaust and determine the social world. (If a set of social properties supervenes upon a set of individual properties, there can be no difference in the social properties without some difference in the individual properties.)

Property Identity Thesis: Social properties are identical to some individual-level property.

Reductionism/ Methodological Individualism: If the supervenience and property identity theses are true, then every social explanation is reducible to individual explanation.

Holistic Causal Explanation: Although supervenience is true, the property identity thesis is not. Therefore, social properties are not indispensable form of social explanation.

My goal in this chapter is to favor one class of arguments for causal explanatory holism over another based on how effectively they can negate the identity thesis. The common core of arguments for causal explanatory holism is that although the social world is composed of individuals and no mysterious supernatural elements (supervenience individualism), social properties are not identical to individual properties (rejection of property identity thesis). The distinguishing factor among such arguments is the reason behind the non-identity of social and individual properties. A very influential and widely accepted class of arguments, which I call multiple realizability (MR) arguments, deny the property identity thesis by making the claim that since social properties are multiply realizable, they are not identical to individual properties. However, I will favor a somewhat unsung alternative that relies on the concept of emergence to deny the property identity thesis. I ground this alternative on the emergence argument.

MR Arguments: Social properties are multiply realizable by individual properties and therefore social and individual properties are not identical.

Emergence Arguments: Social properties are not identical to individual properties because at least some social properties are emergent.

In denying the identity thesis, the tricky point about MR arguments is that MR properties cannot be identical either to individual properties or to a disjunction of such properties. The importance of this point is most salient to the definition of social properties and to the justification for grouping individual realizations under a social kind. By focusing on the justification for grouping social properties, I show that MR arguments face a dilemma. If they rely on causally relevant justifications for grouping, they will run into the so-called exclusion problem⁷, and if they allow non-causal justifications for grouping social properties, the social properties will lack any causal power. I argue that even the “difference-making” approach to causation cannot resolve this dilemma.

The Grouping Justification Dilemma:

First Horn: If causally relevant properties are what justify grouping individuals together, then we run into the exclusion problem.

Second Horn: If things other than causally relevant properties justify grouping individuals together, then social properties will lack causal power.

The dilemma for grouping justification might sound like a metaphysical disagreement that not very many need to worry about. However, on the one hand, explaining many social problems including different social inequalities demand grouping individuals based on certain social categories, like race, gender, disability status, class, etc. On the other, hasty generalizations that seek minimal criteria for common features that justify grouping individuals based on some shared properties lead to serious problems with normative significance. In what follows, I argue that without an adequate response to the grouping justification dilemma, we can end up with such hasty generalization with adverse downstream consequences. Such

⁷ I will explain this problem shortly, but the gist of the problem is that if an individual property is causally sufficient for an effect, then a social property cannot be the cause of the same effect. In sum, the causally sufficient individual property excludes the causal relevancy of the social property.

generalizations assume homogenous and static groups in which the interdependence and malleability of members is irrelevant to the causal explanation of the phenomenon at the aggregate level.

3. Points of Agreement

As I mentioned in the previous section, endorsing causal explanatory holism often requires endorsing supervenience individualism and rejecting the property identity thesis. Although these endorsements seem abstract and far away from real applications, it is important to note that they come from the concerns of researchers in fields like economics who see the limitations and advantages of such endorsements. For instance, the success of micro-reduction strategies at least partially explains the resistance to holistic approaches to explanation (Kim, 1984) (Bickle, 2010). Similarly, the realization that these strategies are not enough to explain the success of science was and is an important issue to address. Kenneth J. Arrow, a game theorist, famously criticizes the assumption in economics that “in principle the behavior we explain and the policies that we propose are explicable in terms of individuals, not of other social categories” (Arrow, 1994, p. 1).

Strict reductionistic expectations even in fields that are the most successful in their micro-reduction strategies are problematic. According to Arrow, the assumption that all social phenomena is explicable in terms of individuals and their attributes leads to the unreasonable expectation that “all explanations must run in terms of the actions and reactions of individuals” (p.1). However, Arrow contends that “social categories are in fact used in economic analysis all the time and that they appear to be absolute necessities of the analysis, not just figures of speech that can be eliminated if need be” (p.1). More importantly, as Arrow suggests and shows in his own work, even the closest realization of individualism in economic theory, namely game

theory, relies on social categories to produce successful explanations.⁸ Indeed, these concerns have been magnified by a new wave of game theorists who argue that analyzing networks and complex social systems without relying on social proprieties is a hopeless endeavor (Epstein, 1999).

Although the debate between individualism and holism in social sciences is not settled, with some qualifications all sides of the debate agree on a few points. Supervenience individualism is one of those points that has been immune to criticism. In fact, supervenience was originally a way for philosophers to admit the priority of individuals over non-individuals without making any further reductive claims. It refers to the idea that individuals can exhaust and determine the social world (Kincaid, 1986). This determination relationship is not necessarily causal, it can be a metaphysical necessity and can involve individuals' relations and their environment in some interpretations. But the most important implication is that if a set of social properties supervenes upon a set of individual properties, there can be no difference in the social properties without some difference in the individual properties.

Unlike supervenience, the property identity thesis is a key point of disagreement. The social and individual properties are identical in the sense that they have the same extension. In other words, the realizations of two identical properties are the same and grouped together because of the characteristics that are relevant to those properties. Thus, such realizations need not be exactly like one another in all respects. For example, the social properties that group individuals in terms of their income level are identical to their individual-level properties. For instance, low-income individuals are often grouped together because of their actual individual-

⁸ Arrow argues that it is difficult to define competitive equilibrium as the outcome s of a non-cooperative game. But it is not hard to construct such a game with such an outcome. (p. 4)

level income. But this identity relationship is not in place when we talk about low-income communities because things other than individuals' actual income is relevant to their membership to the community. For instance, a high-/middle-income individual might be a member of a low-income community because of her strong familial ties and shared concerns, beliefs, etc.

Various examples and fallacies occur when the property identity thesis is assumed without qualification. For instance, we know that an individual's lower income is highly correlated with a higher chance of heart disease. If, regarding the relationship between heart disease and income, the individual and social properties were identical, then by knowing the individuals' income and its effect on risk for heart disease one could conclude that wealthier nations, controlling for the distribution of income, have a lower rate of heart disease. However, empirical evidence indicates that wealthier nations have a higher rate of heart disease comparing to nations with a lower average income. This example shows how the property of belonging to low-income groups at the individual, community, and national levels are not identical. However, whether this kind of non-identity demands a distinct framework of explanation is highly contested. In fact, even if one agrees that holism is the right response to address such non-identity, more needs to be said about the metaphysical and methodological commitments of a proper holistic approach that can distinguish such non-identity and avoid the relevant fallacies.⁹

4. MR Arguments and Grouping Justification

MR arguments rely on the multiple realizability thesis to reject the identity of social and individual properties. The concepts of supervenience and MR are well-known to many philosophers of social science who advocate some form of social explanatory holism (Currie

⁹ Examples of such fallacies are the atomistic and ecological fallacies.

1984; Kincaid 1997; Mellor 1982; MacDonald and Pettit 1981; Pettit 1993). The prevalence of MR arguments in the philosophy of social science is at least partially explainable by a consensus in the philosophy of mind that the MR thesis successfully shows that the mental is not reducible to the physical (see for example, Sawyer, 2002; Kincaid, 1986; and List & Spiekermann, 2013). According to the MR argument in the philosophy of mind, all mental properties are MR and all MR properties are non-identical to individual properties; therefore, the property identity thesis is false (see Fodor, 1974; Putnam, 1967). Similarly, in the philosophy of social sciences, the general assumptions are that social properties are MR at the individual level and that MR properties are not identical to their individual level¹⁰ physical realizations (see Sawyer, 2002; Kincaid, 1986; List and Spiekermann, 2013).

MR Thesis: a social property is MR if and only if it can be realized by many distinct individual properties.

MR Argument Reconstructed:

P1. Some social properties are MR.

P2. MR thesis (a social property is MR if and only if it can be realized by many distinct individual properties).

P3. A social property that is MR, given that it is realizable by distinct kinds of individual realizers, is not identical to any individual property/kind.

Conclusion: The Property Identity thesis is not always true.

According to the MR thesis, a social kind/type/property, say “the working class”, can be realized by many distinct individual kinds/types/properties. Thus, at least two type/kind distinct realizers are necessary for a social property to be MR. In other words, if a social property is

¹⁰ Kincaid, 1997, p. 17-20. Similarly, Sawyer states that “For example, the property of ‘being a church’ can be realized by a wide range of organizational structures, cultural practices, and individual beliefs and dispositions. The same is true of properties such as ‘being a family,’ ‘being an organization,’ and ‘being an institution.’ Microsocial properties are no less multiply realizable: examples include ‘being an argument,’ ‘being a conversation,’ and ‘being an act of discrimination.’” (2002, p. 547)

realizable by two or even an infinite number of realizers that all belong to the same kind, that property is not MR. Obviously, whether or not the individual realizers belong to the same kind/type or not is dependent on the way we define kinds or types. Often the assumption is that a group of entities/events/processes fall under a shared property, a kind, or a type because of their shared causal powers or their relevancy to an explanation.¹¹ That is to say, the justification for grouping distinct realizers under a kind often has to do with their causal power or their relevancy to the desired explanation.

The belonging of the realizers to the same kind/type also depends on the way we define identity and dissimilarity. The common understanding is that two properties that group the same set of realizers because of their same causal power or role in explanation are identical. Two properties are distinct when they do not. In sum, the definition of MR properties and whether there exists a property that is MR is highly dependent on the justification for grouping different realizers or properties under a single property/type/kind. A social property is MR when its realizers belong to type distinct individual properties but can be justifiably grouped together under a single social property (see Shapiro, 2000; Polger & Shapiro, 2016; and Couch, 2004).

Recognizing the role of grouping justification helps to see why not all social properties are MR. In fact, some paradigmatic examples of MR thesis are not obviously MR when the justifications for their groupings are not taken for granted. For instance, List and Spiekermann (2013) follow Fodor (1974) who argues that “owning 20 dollars” is MR since it can be realized by many distinct realizers, such as owning coins, dollar bills, credit in the bank, etc. The idea is that although the property of being in a certain contractual relationship with others can be

¹¹ For more information about how types or kinds do or should be defined see Polger & Shapiro (2016), Kim (1993), and Couch (2004).

identical to or defined in terms of the property of owning 20 dollars, neither properties are identical to any of their realizations such as having coins or dollar bills in one's pocket. In other words, the justification for grouping together the individual realizers such as having coins or dollar bills in one's pocket is the higher-level contractual relationship and not the properties of the individual realizations. The reason is that owning 20 dollars can be realized by an infinite number of distinct realizers that have nothing in common that justifies their grouping under one kind. In other words, the realizers of "owning 20 dollars" are not type distinct. However, if the realizers are not type distinct, their justification for grouping is identical to the contractual relationship. Thus, "owning 20 dollars" is not MR.¹² The idea is that if the material or shape of coins and dollar bills are causally irrelevant for what they can do, then they do not belong to distinct kinds of realization.¹³

The grouping justifications also determine whether a social property is reducible/identical to individual properties. It is helpful to distinguish a vertical and a horizontal condition for identity. The vertical condition for identity/non-identity concerns properties at two different levels when one level supervenes on the other, like the supervenience of social on individual properties. The horizontal condition for identity/non-identity concerns two or more properties at the same level without any supervenience relation. Two properties are vertically identical when the justification for grouping at the lower level groups the same realizers as the justification for

¹² Similar to the property of owning 20 dollars, many statistical properties are not automatically MR just because they can have distinct realizers. For statistical and aggregate properties to be MR, there should be at least two distinct kinds of individual realizers that their grouping is explanatorily relevant to the phenomenon of interest. Thus examples like unemployment rate are not automatically MR in the way that is portrayed in the literature in social explanation just in virtue of having different distributions or realizers if there is no reason to believe that the distribution or the actual realizers are causally relevant. For instance, in support of the multiple realizability of unemployment, List and Menzies (2013) simply invite us to "Think of all the different possible distributions of jobs and job-seekers that would correspond to an unemployment rate of 8%" (p. 36). However, the relevant question to ask is whether those possible distributions create distinct kinds of unemployment or realizers for unemployment, or even distribution is relevant for the purposes that unemployment is used.

¹³ For more on this see Shapiro (2007).

grouping at the higher level. Failing to show that there are at least two distinct and relevant grouping justification for individual realizers implies that the social and individual properties are identical. For instance, the grouping of individuals at the social level and by their income can be identical if it is done just for the purpose of, for example, understanding what portion of the population earns less than a threshold level. Similarly, when “low income” as a property is linked to the risk for cardiovascular disease, the social and individual justification for grouping is one and the same because low income is the only causally relevant property.

Two properties are horizontally identical when they have the same justification for grouping at two levels. Failing to show that there are at least two type-distinct realizations of a given social property in fact belong to one social kind implies that the social property is reducible to individual properties, in a local sense. In other words, two distinct kinds of individual realizations that are in fact distinct in a causally relative sense require some independent justification for grouping under a single social property. For instance, an independent justification for grouping is necessary if one groups together the civil rights protests in the 1960s with other kinds of disorderly behavior such as dealing drugs, loitering, and prostitution.¹⁴ Even if the protests are in fact breaking the order in some sense, they have distinct mechanisms, intentions, causes, and even level of endorsement. Thus, at best, a notion of disorder that covers all forms of behavior mentioned above is a disjunctive kind without a further justification for why they in fact belong to the same group.

¹⁴ I will discuss this example more later in this paper. But the advocates of the broken window theory of policing suggest something similar by arguing that the role of police is to minimize any kind of disorderly behavior to keep neighborhoods safe. For instance, Jeffery Walker (2011) states that “In the 1960s, when urban riots were a major problem, social scientists began to explore carefully the order maintenance function of the police, and to suggest ways of improving it—not to make streets safer (its original function) but to reduce the incidence of mass violence” (p. 173).

A successful rejection of the property identity thesis cannot allow disjunctive kinds because they are locally reducible. Disjunctive kinds are the ones that are horizontally distinct both at the individual level and social level. Thus, even if we name the disjunction of the social properties in the same way, like calling protesting for civil rights and loitering “disorder”, the social properties and their causal relations remain locally reducible. The problem is that distinct lower level properties with distinct causal mechanisms relevant to a causal explanation need some further justification for grouping under the higher-level property.

In sum, the core problem with the MR argument is that it is tricky to find social properties that are not disjunctive but have distinct kinds of realizers. In other words, types or kinds are a bundle of explanatorily relevant properties. Thus, for a causal explanation at the social level, individual properties that are not causally effective cannot create distinct causal kinds or types. Without distinct types, a social property cannot be MR. With distinct types, the social property is just a disjunction of two irrelevant properties. In this case, not only does grouping these distinct kinds require some independent justification, but also the social property is locally reducible to individual properties. Thus, for MR properties to be possible and for us to reject the identity thesis, the individual realizers need to be type-distinct and the social property should be type-identical. There should be some independent reason for grouping C_{H1} and C_{H2} under C_H , or simply they should be identical. Otherwise, they will be locally reducible to C_{L1} and C_{L2} .

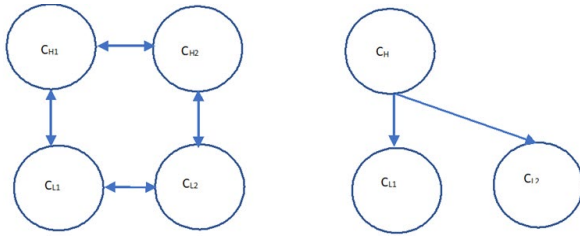


Figure 1. On the left, you can see a disjunctive kind with horizontally distinct social properties as well as individual properties. Thus, the social property $CH1$ and individual property $CH2$. On the right, you can see an MR property that is horizontally distinct at the individual level but not at the social level. Thus, the social property and individual properties are vertically non-identical.

5. The Grouping Justification Dilemma

The success of MR arguments and the plausibility of MR thesis is dependent on the way we justify the grouping of realizers under the same or distinct kinds of properties. If we avoid taking for granted such justifications, the MR arguments face a dilemma that summarizes the main problems with MR arguments. According to this dilemma, the justification for grouping under a social property can be causal or non-causal and either way, the implications will be implausible. On the one hand, if grouping justification for a social property is causal, then denying the identity relationship between social and individual level properties implies that a given effect has more than one sufficient cause, which is counterintuitive if we exclude overdetermination cases. More importantly, if we accept that the individuals and their actions are causally sufficient for explaining the social world, then it seems obvious that social properties lack any causal power. On the other hand, if the grouping justification for a social property is non-causal, then either the social property will be identical to individual properties, or there is a need for an independent reason that explains why non-causally grouped realizers all produce the

given effect. More importantly, MR arguments often provide a circular logic instead of an independent reason to justify such groupings.

A justification for grouping under a social property is causal when the members of the group, in virtue of a shared trait, can make a difference in an effect. For instance, the grouping of lower-income individuals is causal when, in virtue of their low income, these individuals have a higher risk of cardiovascular disease. However, there are a few risk factors that explain the higher rate of heart problems, say diet and stress. For the sake of simplicity, I assume only these two factors are causally relevant and each is causally sufficient for a higher rate of heart disease. Thus, individuals can be grouped together in virtue of their dietary habits, or in virtue of their overall stress level. Since each of these groupings are sufficient for the increase in occurrence of heart disease, then it seems plausible to divide individuals based on the causal mechanisms that bring about their higher risk of heart disease. In other words, grouping individuals based on their income leads to a disjunctive social kind that is reducible to two distinct kinds.

Individuals' income on its own cannot be the risk factor for heart disease because as I mentioned in the previous sections, grouping individuals based on their income level has the same extension and the same justification for grouping at the social level. But talking about “low-income communities” for instance involves more than individuals with low income and is not easily reducible. Thus, one might say low-income at the community level is the cause of the higher risk of cardiovascular disease in that community or for individuals who live in that community. However, according to the first horn of the dilemma, if it is in fact possible for the community income to be a distinct causally relevant grouping of individual causes, then we have two distinct and sufficient causes for the effect. For instance, at the individual level, one cause is membership of low-income community and another cause is high-stress level. Both causes are

sufficient to bring about the effect. The problem is since one causally sufficient reason is enough and it is already given at the individual level, then the membership of the community becomes irrelevant. The same goes for individuals who have unhealthy diets. Therefore, the social property lacks any causal role in the explanation.

According to the second horn of the dilemma, if individuals are grouped under a social property for non-causal reasons, then the social property is causally irrelevant. For instance, the justification for grouping individuals who have poor diet and higher stress can be the efficiency in talking about individuals who have one of the two conditions or any other causally irrelevant reason. Then, instead of the low-income community as an explanatory variable, we could just have a disjunction of diet and stress. In this case, the low-income community as a property is locally reducible to groups of individuals who have a bad diet and individuals who have high stress. However, I already showed that disjunctive properties are locally reducible. Also, one might argue that there are two kinds of heart disease and each corresponds to the mechanism by which it is induced: one that is induced by bad diet and another that is induced by stress. Thus, there are two causal relations and for a given individual we can distinguish which kind of heart disease is in effect.

Causally irrelevant grouping justifications deprive social properties of causal explanatory relevance. Such a grouping justification for a social property implies that it is a disjunctive kind. Such a disjunctive social property not only is locally reducible, but also fails to maintain causal relation with other properties under the manipulation of the cause and effects. For instance, if somehow the income level of a given community increases, although the heart-related problems due to stress might go down, the problems due to diet might remain unchanged or even increase.

Higher consumption of and access to food with saturated fat and added sugar can be the culprit in this hypothetical case.

The problem in the first horn of the dilemma is best described by Jaegwon Kim (2005) as the exclusion argument. Kim argues that endorsing supervenience individualism and the causal closure of individuals¹⁵ implies that there is an individual-level¹⁶ property that is causally sufficient for the existence of any social property.¹⁷ Thus, since an effect cannot have two distinct causes, the individual-level property excludes the social property from being causally effective.¹⁸ This argument can also be summarized in terms of three premises **Invalid source specified..** The first premise is just supervenience individualism, which is compatible with the presumptions of MR arguments. The second premise is the closure principle, which indicates that every social-level effect has an individual-level cause. The third and final premise is the exclusion principle, according to which an effect cannot have two distinct and non-identical causes that are both sufficient for its occurrence (excluding over-determination cases).

MR arguments have a circular logic in responding to the second horn of the dilemma. For instance, Fodor (1974) rejects the property identity thesis by distinguishing nomic kinds and disjunctive (non-)kinds. In other words, he suggests that the justification for grouping individual

¹⁵ The idea is that the physical world is causally enough for the occurrences of all phenomena.

¹⁶ In Kim's version of this argument, the comparison is between mental and physical not between social and individual. But in the literature on social explanation, often the mental is replaced by social and the physical by individual. If one endorses that individuals are the only actors in the social world the argument will work, but this is not an obvious and easy endorsement. However, since the advocates of MR arguments in social explanation share this endorsement, the grouping justification dilemma is valid.

¹⁷ The original argument by Kim was introduced in the philosophy of mind. The concern is to determine whether the mind is anything above and beyond neurological and physical. The idea is that causal relationships only exist among physical entities, so thinking that the mind can be causally efficient is not justified. In the parallel conversation in the philosophy of social sciences, the concern is whether individuals are the only causally effective components of the social world. Although many who engage with the former discussion might disagree with the latter, I follow the way that this conversation is set up in the methodological individualism and holism debate, by which physical is replaced by individual and mental by social.

¹⁸ The original form of this argument is that if a lower level property is causally sufficient for the effect to happen, then a higher level property that supervenes on the lower level property cannot be the cause.

properties under a social property has to do with the law-like generalizations in which the social property can appear. According to Fodor, pain is a nomic kind since it appears in a law-like predicate while the disjunction of distinct neural states that realize pain cannot have a law because they create a disjunctive kind. However, as Kim (1998) argues, this line of reasoning smacks of circularity: “‘Q->R’ is not a law because a non-kind, Q, occurs in it, and Q is a non-kind because it cannot occur in a law and ‘Q->R’ in particular is not a law” (Kim, 1992, p. 10). In other words, the justification for grouping cannot be the existence under a law-like generalization because the requirement for the generalization to be valid is a solid justification for grouping.

The grouping justification dilemma is another way of talking about old problems with MR arguments. However, there are new arguments that rely on MR thesis to support causal explanatory holism and claim that they are immune to these decades’ old problems. In what follows, I consider one of such arguments that claim a difference-making approach to causation can resolve the first horn of the grouping justification dilemma. I explain how this argument works and argue that grouping justification remains a main issue even when causation is understood in a difference making sense. In fact, the difference making approach to MR arguments can successfully address neither of the two horns of the grouping justification dilemma.

6. The Difference-Making Approach to MR Arguments

List and Spiekermann argue that MR arguments can successfully respond to the exclusion argument by replacing the “mechanism-based approaches” to causation with a difference-making approach. The difference-making approach to causation interprets causal claims as claims about the relationship between variables. Thus, if A causes B, then changing the values of A should

lead to a change in variable B.¹⁹ Binary variables²⁰ are often used to represent the presence and absence of properties at different levels. But the scope of the difference-making approach is not limited to binaries. According to List and Spiekermann, the difference-making approach avoids the mechanism or process talk and focuses on the “regularities that certain events or event types stand.” (p. 636). A causal relationship in the difference making account is best understood as “robust regularities between certain variables or properties” (p. 636). In other words, the robust regularities occur when the property C (or the cause property) systematically makes a difference to E (or the effect property). Two conditions are necessary for a robust regularity: a positive tracking condition, which implies that in closest possible worlds, if C occurs then E occurs, and a negative tracking condition, which implies that without C, there will be no E.

List and Spiekermann argue that the exclusion argument is flawed since “when causation is understood as difference-making....it is an empirical question whether the most systematic regularities in which some effect E in a social system stand can be found at the lower-level or at the higher-level of description” (p.630). In other words, they suggest that if we accept the difference-making approach to causation, then the exclusion principle is not always true. The key point about difference making regularities is that they are robust to variations at the lower levels. In other words, the difference making approach is a holistic claim as long as the MR thesis is true and can support the non-identity relation between the social and individual properties and thereby causal relations. They state the following:

Suppose we find a robust correlation between a higher-level ‘cause’ property (e.g. the interest rate set by the central bank and some ‘effect’ property (e.g. inflation) in a system

¹⁹ This formulation has been introduced by Woodward (2003) and used by List and Menzies (2009).

²⁰ Assuming that variables are binary, then the presence of A should make B be present and vice versa.

(here the economy). We can then ask whether the effect would continue to occur across variations in the lower-level realization of its putative higher-level cause. If the effect continues to occur under at least some such variations (other things being equal), we call the higher-level causal relation ‘robust to changes in its micro-realization,’ for short ‘micro-realization robust.’ (List & Spiekermann, 2013, p. 637)

To illustrate their point, List and Spiekermann rely on the diagram below. In the diagram, every point in the two-dimensional space is a possible world or possible scenario. The center point represents the observed data in the actual world, and the distance of every point/world from the center represents how far away or how different are the other possible worlds that can be imagined in the counterfactual scenario. Thus, the concentric circles around the center represent equally distanced possible worlds. The goal is to show the cause of some effect E, which happened in the actual world and all the closest possible worlds, represented by the innermost circle. As the exclusion argument suggests, there are two possible candidates for the cause of E: one is the higher-level property CH, and the other one is the lower-level property CL. This representation satisfies both supervenience and the closure principle in the exclusion argument. However, it shows that the exclusion principle is problematic.

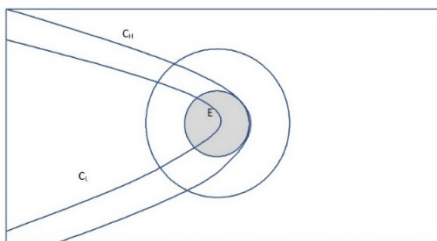


Figure 2, Represents List and Menzies example for the non-reducibility of a higher level property as the cause to a lower level property, in a difference making sense.

The problem with the exclusion principle, List and Spiekermann argue, is that it leads us to identify the wrong property as the cause of the given effect. The higher-level property, CH,

leads to the effect, E, in all close possible worlds, and when it is not present, the effect is not present either. Thus, both the positive tracking and negative tracking conditions are satisfied. However, the lower-level property, CL, fails to satisfy one of the two conditions. Although the lower-level property, CL, exists in all close possible worlds in which the effect, E, is present, there exist some possible worlds in which the effect, E, is present and the lower-level property, CL, is not. Thus, the exclusion principle is false since even when the lower-level property, CL, is causally sufficient for E to exist, a distinct property, CH, can nonetheless be the cause of E in the difference-making sense.

7. The Difference Making Response to the Dilemma

The main concerns of the first horn of the grouping justification dilemma are the exclusion problem and the exclusion principle. List and Spiekermann reject the exclusion principle and thereby the exclusion argument by arguing that the proper way of thinking about causation is in difference-making terms. However, the problem is that the success of this argument is dependent on how the realizations for the cause and effect are grouped together. For instance, if we allow two kinds of realizers or possible worlds, one in which one kind of lower-level cause and its corresponding effect are present and another in which the remaining kind and its corresponding effect coexist, then even the causation in the difference-making sense is subject to the exclusion argument.

If List and Spiekermann are right, the causally relevant justification for grouping the individual properties under a single social property is the robust regularity between the property and its effect. In other words, they introduce a new kind of causal relevancy by replacing sufficient cause with difference-making cause. However, that causally relevant justification in the difference-making sense can also exist at the lower level, which makes the social properties

disjunctive. In other words, lower-level properties can also have robust regularities when they are grouped accordingly. For instance, in Figure 2, C_H seems to be just the disjunction of C_{L1} and C_{L2} , and E is the disjunction of E_1 and E_2 . If these disjunctions are based on causally relevant grouping in the difference making sense, then there is virtually no difference between difference making and sufficient causes in terms of grouping justifications. Although with respect to E , neither C_{L1} nor C_{L2} satisfies the negative tracking condition to be in a micro-realization robust regularity, with respect to E_1 and E_2 , C_{L1} and C_{L2} are the difference-making causes, respectively. The cause and effect properties at the lower level, namely (C_{L1}, E_1) and (C_{L2}, E_2) , satisfy both the positive and negative tracking conditions since C_{L1} is present in all possible worlds in which E_1 is present and C_{L2} is present in all possible worlds in which E_2 is present. Also, neither E_1 nor E_2 is present in possible worlds in which C_{L1} and C_{L2} are not.

Any property can be a disjunctive kind if the only justification for grouping its realizers is a micro-realization robust regularity. Of course, there is nothing special about C_{L1} and C_{L2} in the way that was described in Figure 3. For instance, if we control for all the risk factors that explain the higher rate of cardiovascular problems and still membership in a low-income community is explanatorily relevant to the effect, then the unexplained part of such membership forms its own social property and micro-realization robust causal relationship. Thus, all that is needed to show that the difference-making cause happens at the lower level is one causally sufficient lower-level property that explains a subset of the effects. In these situations, even according to the modified version of the exclusion principle that List and Spiekermann use, it is still true, and the exclusion argument is a problem for the difference-making approach to MR arguments.

The exclusion principle indicates that “If a lower-level property C is the cause of E, no distinct higher-level property C* that supervenes on C can also be a cause of E” (p.23). However, I showed that if the only justification for grouping the properties is the robust regularity between the cause and effect, then for any C_H and C_{L1} there will be a $C_L^* = \{C_{L2} \dots C_{Li}\}$ with robust regularities if we allow E to be the disjunction of $E_1 \dots E_i$. Also, the supervenience individualism and causal closure principles imply that any C_H is equal to the disjunction of $C_{L1} \dots C_{Li}$ that each have a micro-realization robust regularity with their corresponding $E_1 \dots E_i$. Therefore, the difference-making approach to causation faces a similar problem with any other approach to MR argument. The social properties seem to be redundant or causally ineffective if the effect(s) are explained by more than one non-identical property with causally relevant grouping justifications. In other words, the difference-making approach fails to reject the exclusion principle.

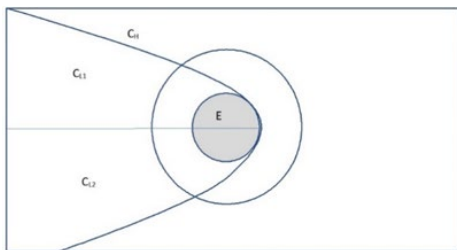


Figure 3. Micro-realization robust causal regularities can be reducible to lower-level regularities if higher level properties are disjunctive.

According to the second horn of the dilemma and given the necessity for grouping justification, a general problem with MR is that the non-identity of social and individual properties can automatically deprive the social properties of any causal power. Given that kinds or properties are determined by their causal power and that such power is inherited from individual realizations, the non-identity of social and individual properties means that social properties do not have any causal power. The only way that social properties can maintain

causal power is by the identity relationship between social and individual-level properties being endorsed. This identity is often assumed to be local and domain-specific and implies that the grouping of distinct individual properties under the social property lacks proper justification.

This argument can be reconstructed by the following premises.

P1. The units of analysis, which can be individual- or social-level entities, events, and processes, fall under a kind or share a property, insofar as they have similar causal powers.

P2. The causal power of each instance of a social property is identical²¹ to the causal power of its individual-level realizations.²²

P3. Social properties are MR; therefore, social properties are not identical to any of their individual-level realizations.

Conclusion: social properties do not have causal power.

As I mentioned earlier in this section, the key move of the difference-making approach to MR is to distinguish the sufficient cause from the difference-making cause. For instance, List and Spiekermann (2013), following List and Menzies (2009), argue that although P1 and P2 are true, the causal power of each instance of social property in the difference-making sense is not identical to the causal power of its individual-level realizations (P4). That is so because the individual-level realizations do not satisfy the negative tracking conditions. Thus, the fact that social properties are MR and not identical to individual-level properties no longer implies that social properties cannot be causally effective. Indeed, social properties can have social power in

²¹ Kim (1992) defines something very similar to this premise as the principle of causal individuation of kinds.

²² Kim (1992) calls something very similar to this premise the causal inheritance principle.

the difference-making sense. However, the difference-making approach fails to provide an independent reason that justifies grouping the individual-level realizations under a social property.

P4. The causal power in the difference-making sense of each instance of a social property is NOT identical to the causal power in the difference-making sense of its individual-level realizations. (The negative tracking condition is not met by the lower-level properties.)

Conclusion: Given P1-P4, social properties *do* have causal power in the difference-making sense.

In sum, similarity is a core idea for the notion of property or kinds of properties and is defined in terms of the causal power or the causal relationship between two properties. Moreover, any property can be re-described as a disjunction or conjunction of other properties. Thus, whether a property like E is disjunctive or not does not follow from the mere fact that E is a property or even a social property. Therefore, for the argument above to be valid, the social properties that stand as the cause and the effect cannot be disjunctive. That is to say that CH cannot be simply the disjunction of CL1 and CL2 and E cannot be the disjunction of E1 and E2. If they are disjunctive, then the micro-realization robust regularity between them is easily reducible to the robust regularities at the individual/lower level. To show that CH is not a disjunctive kind, however, the difference-making approach to MR arguments needs an independent reason. Manipulation is often a good reason to confirm that a given social property is not disjunctive. However, causation in the difference-making sense and its requirements are not successful under manipulations that aim to support the justification for grouping. I provide an

example in the next section that illustrates the weakness of the difference-making approach under manipulations that test the grouping justification.

8. When Is Holistic Social Explanation Necessary?

In what follows, I discuss an example of a group of studies that led to the broken window theory of policing in the United States. My goal by discussing this example is to highlight the importance of the grouping justification problem. Thus, first, I lay out the conditions that List and Spiekermann, based on their difference making approach, provide for the cases that mandate a holistic causal explanation. I use the broken window theory of policing to show that a micro-realization robust regularity between two properties on its own does not justify grouping distinct realizers under a social property. More broadly, my goal is to show that like the reductionist approach to explanation that underlines and supports the research strategy of micro-reduction in modern theoretical science,²³ the dominance of MR arguments underlies and supports some research strategies and creates its own blind spots.

Based on their difference-making account of causation, List and Spiekermann offer three conditions for cases that mandate a holistic causal explanation: (i) multiple levels of description, (ii) multiple realizability of higher-level properties, and (iii) a micro-realization robust causal relationship. According to List and Spiekermann, the first condition is almost always met by social systems or phenomena. The requirement for grouping the higher-level properties is partially justified “many configurations of lower-level properties can instantiate the same higher-level properties” (p. 639). Of course, the mere instantiation by different configurations of lower-level properties is inadequate. But the final condition completes the justification for grouping, although List and Spiekermann do not frame it that way. The final condition is the presence of a

²³ You can find a very similar formulation in Kim’s (1984) work.

micro-realization robust causal relationship between the multiply realizable properties. A higher-level property is micro-realization robust in a “difference-making cause” when it satisfies both the positive tracking and negative tracking conditions. In general, a causal relation is “micro-realization robust: “if the effect property would continue to occur under at least some variations in the lower-level realization of its putative cause” (p. 639).

The broken window theory of policing shows that the existence of a micro-realization robust regularity cannot show that a social property is not disjunctive. The broken window theory of policing taps into a “folk wisdom,” namely that “serious street crime flourishes in areas in which disorderly behavior goes unchecked” (Wilson & Kelling, 1982, p. 9). This theory is built on a study that focuses on the social causes of vandalism and on other studies about the effect of the “Foot-Patrol Project” that helped cities “take police officers out of their patrol cars and assign them to walking beats” (Wilson & Kelling, 1982). The idea behind this theory of policing is that not only is there a link between disorder and crime but bringing back order to communities will also reduce the crime rate in those communities. The conclusion is police departments can and should oversee order maintenance, which started a long and politically laden history of efforts by police departments to “clean up cities” (Wilson & Kelling, 1982).

The main thesis of the broken window thesis is powerful and simple: “once disorder begins, it doesn’t matter what the neighborhood is, things can begin to get out of control” (Wilson & Kelling, 1982). In other words, at the social/higher/community level, a disorderly community has a high crime rate, and no information about the kind of crime or individual or neighborhood characteristics would undermine such a link.²⁴ The logical implication of this idea

²⁴ In an article in the Atlantic, Wilson and Kelling (1982) state “...at the community level, disorder and crime are usually inextricably linked, in a kind of developmental sequence. Social psychologists and police officers tend to

is that order is linked to low crime rates and safety, which was supported by observations of positive instances.²⁵ The researchers also did a follow-up study that showed that neighborhoods with a sharp increase in misdemeanor arrests had a sharp decline in their crime rate.²⁶ Thus, the link between disorder and crime satisfies the positive and negative tracking conditions.

The broken window thesis suggests that disorder causes crime in a difference-making sense. Wherever disorderly behavior is common, the crime rate is high, and wherever the disorderly behavior is uncommon, the crime rate is low. However, critics of this thesis argue that the grouping of distinct features with problems of communities under disorder and crime was a significant mistake. For instance, criminologists argue that the broken window thesis grouped trivial “misbehavior” together with the early signs of much more serious problems all under “disorder” as a social property. This problem is exacerbated with MR assumptions, because “Definitions about what is orderly or disorderly or needs to be ticketed, etc. are often loaded—racially loaded, culturally loaded, politically loaded” (Harcourt, 2005). Thus, the consequence of such bias in the definition of disorder means, in practice, an excuse for harassing and disturbing neighborhoods with a high concentration of poverty and/or immigrants. The harassment lowered the collaboration of these communities²⁷ with the police and lead to many other problematic consequences.

agree that if a window in a building is broken and is left unrepaired, all the rest of the windows will soon be broken. This is as true in nice neighborhoods as in rundown ones”.

²⁵ Wilson and Kelling (1982) state that “In some station, it was found that as many as 1 in 10 people who were not paying the fare were either wanted on a warrant for a felony or were carrying an illegal weapon. Not all fare beaters were criminals, but a lot of criminals were fare beaters. It turns out that serious criminals are pretty busy. They commit minor offenses as well as major offenses.”

²⁶ This study is no longer well supported, mostly due to some other studies that show that cities like LA also had, with no change in their policing, a sharp decline in their crime rates around the same time.

²⁷ A study by Jacinta & Brunson (2010) supports this point.

Even at the level of social scientific studies, the grouping of heterogeneously disjunctive kinds is problematic. For instance, many studies show that although there is a direct relationship between disorder and a crime like robbery, the rates of homicide or predatory crimes are better explained with other social factors. For some crimes, although the presence of disorder is highly correlated with high crime rate and still satisfies the positive and negative tracking conditions, the neighborhood structural characteristics, such as poverty level, the concentration of immigrants, and prevalence of mixed land use, explain both disorder and higher crime rate. Thus, “cleaning up” neighborhoods without addressing poverty or other reasons that make immigrant communities vulnerable to such problems does not enhance the safety of residents, although it might change who is able and willing to live in those neighborhoods. In fact, an increase in misdemeanor arrests is often followed by real estate developments and gentrification.

Another example of unjustified grouping in the broken window thesis is grouping places and their residents under the umbrella term of a neighborhood (Weisburd, 2015). Research on the geographic concentration of crime now shows that for instance gun violence incidents are often concentrated in less than 5 percent of a city’s blocks and streets. In fact, a small social network of individuals is responsible for most cases of homicide (Papachristos, Wildeman, & Roberto, 2015). In other words, the causally irrelevant and conventional grouping of streets and their residents under a neighborhood name seriously lacks a plausible justification. Obviously, exposing every resident of these neighborhoods to constant harassment and fear of arrest also lack a moral justification.

In sum, the disorder and crime relationship are an instance of a micro-realization robust regularity without a proper justification for grouping. The social properties like disorder, crime, and neighborhood satisfy all the conditions that mandates a social explanation. They are

obviously describable at multiple levels and can be realized by different configurations of individuals. More importantly, disorder and crime are linked in a way that is robust under individual variations. However, none of these conditions could justify the assumption that these properties are not disjunctive, and their realizations can be grouped together. The false assumption that they are social kinds that are robust under variations at least partially justified arrests and harassment that would not have taken place if otherwise.

9. Emergence

So far, I showed that MR arguments fail to show that social properties are causally effective. For social properties to be causally effective, they should not be identical to individual properties, which in part depends on the justification for grouping under social properties. Nevertheless, social properties seem to be causally effective and non-reducible to individual properties. Many recent studies on social networks as well as complex and dynamic social systems are evidence for the indispensability of social properties in social explanation. In this section, I sketch the alternative to MR arguments that can successfully reject the property identity thesis and avoids the grouping justification problem. The key to such an alternative is the notion of emergence. Following philosophers of complexity in biology, I provide below a scientifically plausible account of emergence to support causal explanatory holism.

Although emergence is a key characteristic of complex dynamical systems, many social philosophers doubt the legitimacy of social explanations when they imply or assume the possibility of emergent systemic properties. To reject the property identity thesis, an alternative is to show that social properties are *emergent* in the sense that they are irreducibly novel properties of a system that are neither predictable nor explainable in terms of the properties of their constituents. Thus, emergentists deny reductionism or the idea that social phenomena are

reducible to individuals and their attributes, as well as social fact holism, or the claim that the social world has a completely independent nature from the individuals and their attributes.

Four requirements are necessary for a scientifically plausible account of emergence. First, endorsing emergence should not require endorsing the existence of any supernatural power or unnatural entity. It is important to note that this criterion does not imply that the unit of analysis in social explanation ought to be individuals in a sense that excludes from the explanation their biology, their built and natural environment, their network, their organization, or their history. Second, emergence happens at the aggregate or system level and involves novel properties that are irreducible to the properties of individuals or components. Third, a systemic property is emergent if complete knowledge of the arrangements and the properties of the parts is inadequate to explain or predict novel properties at the system level (Boogerd et al., 2005) (Epstein, 1999). Fourth, a systemic property is emergent if, even in principle, it cannot be deduced from the behavior of the components in a simpler system.

In sum, a proper definition of emergence would rely on deducibility instead of reducibility to show that reduction is in principle impossible. More importantly, a more useful definition draws a contrast between the properties of the components in two systems with different complexity levels. Given such definition, there are two logical possibilities or two conditions under which emergence is possible or under which a system-level property is, in principle, irreducible to the properties of the constituents. According to the first condition, emergence is possible when the system behavior is in principle not decomposable or analyzable in terms of the behavior of the constituents. According to the second condition, emergence is possible when the behavior of the components is highly dependent on the system of which they

are a part. Boogerd et al. (2005) call the former condition vertical and the latter condition horizontal.

Satisfying the vertical condition of emergence implies a vertical non-identity between social and individual properties. The vertical condition of emergence is met when the deduction of emergent behavior from the constituent's behavior is impossible. The idea is that when the behavior of a system is non-decomposable or unanalyzable in terms of the behavior of its subsystems or parts, it cannot be deduced from the behavior of the parts either. For a system to be decomposable, either it should be a product of minimally interactive subsystems or it should be a product of a linear sequence of events. However, complex and dynamic systems, by definition, violate both of these conditions. Complex systems are often described as well-integrated systems that are composed of highly integrated components whose behavior continuously and mutually shapes and forms the behavior and even the structure of other components. Thus, the components can rarely be distinct and minimally interactive. For instance, the crime rate in a neighborhood is not independent of its poverty level, disinvestment, physical isolation from other wealthier neighborhoods, the attitudes of others to the members of a community because of their income, race, citizenship, and the like. Thus, if such an interrelation with other community-level elements is the case, then isolating the relationship between say disorder and crime without addressing other elements is a hopeless endeavor.

Satisfying the horizontal condition of emergence implies a horizontal non-identity between two individual properties. The horizontal condition is met in the presence of radical and fundamental differences in the behavior of the components in two systems with different levels of complexity. According to the horizontal condition, the deduction is impossible when the behavior of the constituents is not predictable or deducible from their behavior in isolation or in

other systems. In other words, if the components are malleable to the point that not only their behavior but also their dispositions and to some extent their internal structure are dependent on the system of which they are a part, then they meet the horizontal condition of emergence. In a complex and highly integrated system, the operations of parts are interdependent; that is, they continuously influence each other's operations. For instance, neurological and behavioral studies confirm a potent effect of early environment on individuals' "capacity of human skill development" (Kudson et al 2006, Heckman 2006). Thus, not only do the individuals shape the environment in which they live, the environment shapes their abilities, their needs, and their choices, which also shapes their environment.

Emergence successfully contradicts property identity. By definition, a social property, S, of a complex social system R, is emergent when even complete information about the properties of the parts is insufficient to conclude that the system R has property S. For instance, even complete information about how individuals, normally, or rationally, or naturally behave is inadequate to explain how long a recession will last or whether another instance of police brutality would spark a social movement. Moreover, a social property, S, of a complex social system, R, is emergent when even in principle it does not follow from the individual's properties in constellations different from R how they behave in R. For instance, it does not follow from the fact that members of community A are disturbed by graffiti and fear crime the members of community B would have the same response.

Denying the property identity thesis does not have a grouping justification problem either. Grouping justification is necessary to avoid domain-specific reduction. But emergent properties are not locally reducible since they only occur when the system has proved to be non-decomposable. Another condition for emergence to occur is when the individual properties in the

systems with emergent properties are malleable enough that their properties or behavior in a given system is not deducible from the individual properties in other systems. Thus, when the malleability condition is met there is no space for domain-specific reduction. Moreover, methodologically, although the regularities are used to find the proper level of specification, and the proper properties, the justification for grouping the individual realizations is not about distinct causal kinds in very different systems.

10. Conclusion

The kind of holistic explanation that was the focus of my attention is the one that suggests social properties are causally effective. This suggestion often requires rejecting the identity thesis or the idea that social properties are reducible to individual properties. I argued a class of arguments that rely on MR thesis, MR arguments, are not good candidates for supporting holistic explanation especially when it comes to the study of complex social systems in social sciences. I described the MR arguments and in particular a difference-making approach to MR arguments by List and Spiekermann.

The conditions that List and Spiekermann provide for cases that mandate social explanation rely on a further assumption, namely that social properties in question are not heterogeneously disjunctive. However, we cannot assume a social property is not disjunctive merely because it is a property. Further reasoning is necessary to show that a social property is not reducible to individual properties in a domain-specific way. I argued that the difference-making approach to MR arguments does not address this problem. I further explored an example of the negative consequences of such a lack of justification for grouping social properties.

Finally, I provided an alternative approach to MR arguments that denies the property identity thesis without falling into the same problem with domain-specific reduction and

grouping justification. Emergence happens when deduction from constituents is impossible. When a complex and highly integrated system is non-decomposable, deduction becomes impossible because local reduction is not an option anymore. Non-decomposable systems are systems that are not composed of minimally interactive components or their process happens in a sequence of events, which implies that domain-specific reduction is not an issue. Thus, there is less urgency for justifying the grouping of the emergent properties. Complex systems often rely on alternative methods that would not require defining variables/properties at a higher level without information about their causal relations. In fact, the proper units of analysis in complex systems does cannot be intuitively chosen. A proper specification can easily violate the normal and intuitive distinction between levels of analysis.

Chapter Three: Social Explanation and Moral Response to Social Problems

1. Introduction

In a philosophical debate between methodological individualists and holists, philosophers of race and gender usually lean towards holism for strong descriptive and normative reasons. Although advocates of methodological individualism consider this doctrine politically and ideologically neutral, its main commitments lead to consistently value-laden consequences (Heat, 2015). For instance, these commitments imply that race or gender in social explanation is at least redundant and perhaps even a causal misattribution. The opponents argue that methodological individualism and its implications reduce the explanatory and predictive power of social explanation (Zahl, 2016). Moreover, feminist scholars argue that such implications have a normative dimension since they misguide our moral response to social problems (for examples see Haslanger, 2015; Cudd, 2006; and Young, 2012).

Many believe that some forms of Durkheimian structural functionalism explain the inadequacy of methodological individualism. In this chapter, however, I focus on the account of explanation on which such a functionalist approach relies to support the explanatory relevance of social level properties and entities like race and gender. The fundamental tenet of functionalism is multiple realizability, which justifies abstracting away from anything that is irrelevant to the social order in question. However, I argue that multiple realizability and functionalist explanation, although successful in describing a particular kind of problem with organized complexities, rely on two assumptions that are simply not true in many social systems. First, this form of functionalism assumes and implies independence between different levels of

explanation. Second, functionalism relies on functional decomposition as a heuristic tool for analyzing complex social problems. I show that both these commitments are problematic not only on descriptive and explanatory grounds, but also on the grounds that they misguide our moral response to social problems.

2. Methodological Individualism

Before I address functionalism, it's necessary to first revisit methodological individualism, because functionalism is often seen as an alternative to it. In an episode of "The Dick Cavett Show,"²⁸ a Yale philosophy professor, Paul Weiss, confronts James Baldwin's claims about racial inequality. His argument is an example of a class of arguments that undermines the plausibility of such claims on the basis of their underlying account of explanation. The core of Weiss's point is that claims of racial inequality are implausible because a plausible explanation of a given phenomenon should rely on individuals and their attributes and not abstract entities like race, gender, class, and the like. Weiss argues that Baldwin's claims of racial injustice overlook something very important, namely that each of us is "terribly alone" and has a unique set of struggles. He concludes that the racial problems that Baldwin suggests only exist because Baldwin puts individuals into "groups to which they do not belong" based on the color of their skin. Weiss also states that not all White Americans are racist, signaling that there is no reason to believe that racial injustices are caused by the way Black Americans are treated. In a nutshell, the Weiss's conclusion is that either there is no such problem that all Black Americans share, or even if there is, the cause of the problem is not race and racial discrimination.

²⁸ The show was produced in 1986.

Arguments that undermine claims of injustice by appealing to skepticism about the explanatory power of social groups are abundant in response to emancipatory movements and claims about social injustices. In fact, there is a history of mutual influence between what is understood to be a plausible approach to explanation in the sciences and social debates. One of the most interesting and still hot debates around the issue is between methodological individualism and holism. Both methodological individualism and holism come in a variety of forms, each with a list of commitments. However, there is a particular version of this debate that concerns whether social entities or properties like race and gender are causally relevant to the explanation of particular instances of social inequalities at the individual or aggregate levels.

According to methodological individualism, every social phenomenon is in principle explicable in terms of individuals and their attributes. This reductive assumption is supported by, but not dependent on, the ontological commitment that only individuals and their actions are real and that entities like “society,” “economic system,” “capitalism,” “race,” and “class” are mere “abstractions” (for examples see Hayek, 1942 and Popper, 1944). Thus, since abstractions lack causal power, all explanatory work is done with the individuals and their attributes, as seen in claims like “social events are brought about by people” or “it is people who determine history” (Watkins J. W., 1955, p. 58). Such a lack of causal power makes higher-level macro phenomena like “race,” “class,” “systemic racism,” and “structural injustice” explanatorily redundant or epiphenomenal (Jackson, 1982).

Although methodological individualism does not imply that the cause of a given Black person’s struggle in America is only himself and nothing else, it does make it easy for someone like Weiss to undermine Baldwin’s claim in a variety of ways. Weiss follows an individualistic research strategy that invites us to look at individuals and their attributes to explain their

misfortune. This invitation is supported by the claim that “real” or “rock-bottom” explanations are at the level of individuals. However, looking only at individuals generates a lot of noise, because all individuals are struggling one way or another and it can be hard to see the similarities or differences between individuals and their problems without any higher level information. Also, if these individuals share their environment, and if there is no obvious reason to believe that others treat them differently based on their skin color, then it is difficult to show that Black individuals have a unique set of struggles.

In a more systematic way, Weiss’s argument can be reconstructed in terms of the so-called “exclusion argument.” This argument applies to any system that is describable at at least two levels. For example, in social systems, individuals and their attributes exist at the lower level, and anything beyond individuals, such as culture, inequality, race, and the like, are higher-level entities, facts, events, etc. (see for example, List & Spiekermann, 2013; Kincaid, 1986; Zahl, 2016; and Jackson & Pettit, 1992). Examples of such higher-level properties are often categorized in four groups: aggregate, functional, structural, and contextual. According to the exclusion argument, the use of higher-level entities, properties, processes, etc. is unnecessary, and even a causal misattribution, if individual actions are sufficient for the explanation of social phenomena. Since methodological individualism and many contemporary philosophers and social scientists agree that individuals and their attributes are more basic than their aggregates, then the conclusion is often that social phenomena cannot be causally effective.

The social scientific version of the debate between Weiss and Baldwin can be translated into two questions. Imagine for example a young Black man who is unemployed, call him Khalid. The first question is whether we should assign the cause Khalid’s unemployment to the lower-level description of a set of individual actions, beliefs, and attitudes or to the higher-level

description of matters such as the local or national unemployment rate for African Americans. In response to this methodological question, methodological individualists argue that the cause of Khalid's unemployment must be a lower level property, like some individual actions or beliefs. The trouble is that without information about how Khalid's environment distinguished him from others based on the color of his skin, it might look like Khalid's biological, psychological, intentional, or dispositional attributes are the cause of his unemployment, in which case, there would be no need for intervention and no place for claims about racial injustice. Such information about Khalid's unemployment comes either from the attitudes and beliefs of other individuals or from aggregate-level information. The former is very difficult to obtain, and the latter goes back to the claim that the real explanation comes from individuals and their attributes.

The second methodological question regarding the exclusion argument is whether we should look for the cause of the high unemployment rate of African Americans in lower- or higher-level descriptions. In other words, the question is whether there is any higher-level property that is caused by another (higher-level) property. For instance, if individuals who lack skills or "work ethic" or others with racist and discriminatory behavior are responsible for the high unemployment rate, then the proper explanation relies on lower-level facts. On this account, the causal connection lies, in fact, among individual actions, and the higher-level phenomenon is simply their aggregate. However, if the responsibility were at the level of structure, systems, etc., then the proper explanation would be at the higher level. Therefore, the exclusion argument implies that both Khalid's unemployment and the high unemployment rate have a lower-level cause.

Many have argued that insisting on individuals and their attributes and excluding higher-level social entities from social explanation has important descriptive and normative problems. It

has a descriptive problem because it simply does not match with what social scientists observe,²⁹ and it has a normative problem because it misguides our moral response to social problems. For instance, Haslanger (2015) distinguishes three possible explanations for the economic disparity between men and women. First, the biological explanation is that their innate psychobiological traits put women in a disadvantaged position. Second, the individualistic explanation suggests that women have the disposition to spend time with children and that they make decisions that prevent their economic success. Third, the structural explanation brings in the constraints that are put on women from their environment that change their decisions. The same set of explanations can be and has been offered for Khalid's unemployment. Even in contemporary debates, the biological explanation—the idea that members of different races have different IQ levels that explain their economic disadvantage—is still common (for example Herrnstein & Murray, 1994). The individualistic explanation blames the individual's or the group's decisions for their unemployment.³⁰ And finally, the structural explanation considers the social constraints that shapes the individual's decisions and actions that lead to their unemployment. Thus, Haslanger (2015) and many others³¹ argue that limiting our focus to individual actions has descriptive and normative dimensions. In fact, no intervention seems morally necessary to change the unemployment rate if the cause is the decisions of the unemployed individuals.³²

²⁹ For a more detailed discussion about this issue see Kincaid (1986).

³⁰ For examples see Mead (1986, 1992) and Murray (1985).

³¹ For examples see Young (1980, 2012), Anderson (2010), and Cudd (2006).

³² “Moreover, the explanation illuminates normative dimensions of the circumstances that would otherwise be missed. Given only the biologicistic or individualistic explanations, the fact that women remain economically disadvantaged relative to men appears not to be a matter of moral or political concern: if the best explanation of women's choices to forego economic success is that they, as individuals, desire to be caregivers of children (and the elderly), this is a choice we must respect. No intervention in the name of justice is called for, except possibly the gender disparity in wages that is built into the scenario. The structural explanation reveals, however, that there is a deeper problem than the wage inequity.” (Haslanger, 2015, p.124)

3. Functionalism

In response to Weiss, Baldwin argues that one does not need to know what “most white people in this country feel” to be able to believe the claims of racial injustice. He famously states that “I don’t know whether the labor unions and their bosses really hate me — that doesn’t matter — but I know I’m not in their union”³³ (Baldwin, 1969). He suggests that individuals and their beliefs or desires will not add anything meaningful to the explanation of social inequalities when, at the aggregate level, the disparities are more than obvious. In other words, Baldwin argues that lack of access to individuals’ beliefs and attitudes is not a good excuse for undermining the reality of racial injustice. In fact, he would agree that having such information about what every individual feels or believes would not enhance the quality of explanation regardless of whether we are concerned with Khalid or with the higher unemployment rate among African Americans.

The focal point of Baldwin’s claim resonates with a long tradition of functionalism and functional explanation in philosophy of science, sociology, social philosophy, and philosophy of the social sciences. The main goal of functionalist explanation is to point to the “common denominator of a large number of apparently heterogenous social activity” (Levi-Strauss, 1949). The idea is that by describing functions, structures, or aggregate information “we abstract relational features from the totality of the perceived data, ignoring all that is not ‘order’ or ‘arrangement’; in brief, we define the positions relative to one another of the component parts” (Nadel, 1957, p.7). The ubiquity of the functionalist explanation is due to the fact that it can explain the causal relevance of higher level entities in any hierarchical system. For instance, in its original form, functionalism in sociology mostly relies on the assumption that there is a “true

³³ He further adds that “I don’t know whether the real estate lobby has anything against black people, but I know the real estate lobby is keeping me in the ghetto. I don’t know if the board of education hates black people, but I know the textbooks they give my children to read and the schools we have to go to” (Baldwin, 1969).

correspondence between statistical analysis of the social organism in sociology and that of the individual organism in biology” (Comte 1851-1854, p. 239). However, the important point is that with such assumptions comes the realization that many systems are hierarchically ordered.

Multiple realizability is a fundamental tenet of functionalism according to which social entities and events are to be identified in terms of their interactions with one another instead of by their constituents or content. As I explained in chapter two, functionalists rely on the idea of multiple realizability to reject the exclusion argument. They suggest that although reducing social phenomena to a configuration of individuals and their actions is possible in principle, it is impossible in practice, mainly because social phenomena are multiply realizable. A social phenomenon is multiply realizable when many individual level facts can realize the same social level phenomena.³⁴ Functionalism and its implications can show why social entities like race and gender and their causal power are not explanatorily reducible to the actions or attributes of individuals.

Functionalists argue that in order to arrive at any explanation at all, we need to rely on our observations as to the level of robust causal relationship, which can be at either an individual or group level. In other words, functionalism allows groups, in the form of group action, to be the unit of analysis without mandating that the causal explanation reduce such a group action to individual actions. Consequently, race and gender can be properties of groups, thus having a causal role in social explanation. In sum, any phenomenon that is describable at more than one level is multiply realizable and has a robust causal relationship at the social level that requires a non-reductive explanation. As such, it is a candidate for functional analysis.

³⁴ This idea was first introduced by Hilary Putnam (1967) in *Philosophy of Mind*.

In its most general use, functionalism refers to explanations of social phenomena “by means of their function” (Kincaid, 1990). For example, Kate Manne (2018) defines misogyny functionally and within the system of patriarchy. She states that “misogyny ought to be understood as the system that operates within a patriarchal social order to police and enforce women’s subordination and to uphold male dominance” (p. 18). She also argues that a sufficient condition for misogynistic hostilities is “their social-cum-structural explanation: roughly, they must be part of a system that polices, punishes, dominates, and condemns those women who are perceived as an enemy or threat to the patriarchy” (p. 34). Thus, according to Manne, misogyny "functions to enforce and police women's subordination and to uphold male dominance, against the backdrop of other intersecting systems of oppression and vulnerability, dominance and disadvantages, as well as disparate material resources, enabling and constraining social structures, institutions, bureaucratic mechanisms, and so on" (p. 19).

In sum, functional analysis requires at least three preconditions (List & Spiekermann, 2013). The first requirement is a phenomenon that is describable at more than one level, and the second is the presence of a robust causal relationship at one level. For instance, in Manne’s functional analysis of misogyny, there is a robust causal relationship between two higher level entities, misogyny and gender inequality: the reason for the persistence of one, misogyny, is that it causes the other, gender inequality. The third requirement is that the robustness of the entities and their causal relationship have some independence from the lower levels. In other words, the higher-level entity is multiply realizable. For example, in Manne’s account of misogyny, there is no logical limit on the content of hostilities towards women to make them misogynistic.³⁵

³⁵ Examples for such independence of content for misogyny are abundant. For instance, in his New York Times opinion piece, David Brooks (2016) compares Trump’s misogyny with historical moralistic misogyny. According to him “Traditional misogyny blames women for the lustful, licentious and powerful urges that men sometimes feel in their presence. In this misogyny, women are the powerful, disgusting corrupters—the vixens, sirens and monsters”

4. Independent Levels

Although the functionalist approach seems like a natural choice, it can be problematic, especially for discussions about broad and deep social phenomena like gender or racial inequality. Functionalism, with its reliance on multiple realizability, implies that no information about individuals' attitudes and intentions, their history or biology, or their relationships would be particularly useful in the functional account of social phenomena like racism or sexism or any other kind of oppression in the presence of robust causal relationships at the group or social level.³⁶ In fact, some advocates of multiple realizability and functionalism like Jerry Fodor (1975) explicitly contend that the study of lower level entities, like individuals, has not and will not enhance our understanding of the higher level and its functions. The same contention can be found in feminist and anti-racist analysis of oppression. For instance, as I mentioned in chapter one, Tommie Shelby defines racism functionally as a set of beliefs and attitudes that serves the function of maintaining racial inequality.³⁷ Both these accounts contend that neither the content of sexist or racist attitudes nor the person who holds them is particularly important in the functional analysis of sexism or racism. However, I argue that assuming such independence between facts at the social and individual levels can be descriptively and normatively problematic.

(2016). In contrast, according to Manne (2016) the content of Trump's misogyny is in the form of sexual harassment and belittling women who challenge him. The common feature between these two kinds of misogyny is misogyny's effect of controlling women rather than its content. Thus, the content of misogyny is multiply realizable, and the causal relationship between misogyny and domination of women has some independence from the content.

³⁶ Bechtel & Mundale (1999) make this argument for functionalism in the context of biological explanation. However, their argument is applicable to any kind of explanation that is relying on the functionalist framework.

³⁷ Shelby (2014) employs functional analysis to define the ideology of racism. For Shelby, "Racism is a set of misleading beliefs and implicit attitudes about 'races' or race relations whose wide currency serves a hegemonic social function" (p. 66). He defines ideology functionally as well. According to Shelby, "An ideology is a widely held set of loosely associated beliefs and implicit judgments that misrepresent significant social realities and that function, through this distortion, to bring about or perpetuate unjust social relations" (p.66).

In functional explanation, the irreducibility of higher-level explanations is due to causal relationships at the group level that are robust to changes in their micro- or individual-level realizations. It is also important to note that this approach replaces individuals and their actions with groups and their actions because of its commitment to supervenience individualism. Thus, some form of reduction is in place. Instead of the reduction of higher level to individual level, functionalism reduces the description to one level, usually the higher level, which is causally independent of other levels. However, especially in the social world, the interdependence of levels is a common phenomenon. Thus, a proper social explanation should not take such independence for granted and should not only rely on a causal model that cannot account for such interdependency.³⁸

Functional explanation is only applicable to cases in which the levels of description are independent from one another. In other words, it only works when there is separation of behavior at lower and higher levels without any interaction among them (Bar-Yam, 2015).³⁹ However, not all systems are like that. For instance, when we are interested in the behavior of a flock of birds or a group of individuals whose behavior is neither independent nor coherent, describing each individual's actions is too much information while only describing their average behavior or action is too little.⁴⁰ The assumption about levels fails to see that although the individual level differences matters, the group level properties in fact play a causal role in the explanation of

³⁸ For a detailed discussion of the levels of explanation see Potochnik (2010).

³⁹ For example, in molecular biology, the dynamics of the molecules can be described both at the molecular level and at the level of organism or cells. In thermodynamics, the temperature of a tank is the average energy of the molecules inside of it. Thus, we can describe the tank's status both at the molecular level, the sum of molecular energy, and at the aggregate level, the overall temperature. In the molecular-level description, the behavior of each molecule is important. However, at the aggregate level, we can explain and predict the temperature without any information about the molecules.

⁴⁰ For instance, the mainstream conservative denial of race or gender related inequalities relies on the assumption that we are all unique and different and the troubles of a member of a race or gender group should not have priority over others.

individuals and groups. The best description is across scales and informed by the interactions and relations among the individuals and groups.

We usually assume that levels are independent in the presence of two conditions: difference in order of magnitude and firmness of structure and boundaries (Bar-Yam, 2017). Difference in order of magnitude is the most common reason that we assume that the two levels are independent. For example, the stable unemployment rate among African Americans is not any different if Khalid finds a job. Whatever maintains such an unemployment rate, say the mix of a dysfunctional transportation system and discriminatory hiring practices, creates enough unemployed people like Khalid that his employment *per se* does not change anything. In other words, the change that each individual-level intervention can make at the higher level is negligible. Thus, there is a large enough difference in order of magnitude to justify thinking about the unemployment rate without considering individual-level information about the unemployment of Khalid and other members of his group. In this situation, the phenomenon of interest determines the right level of explanation.

Firmness of structure and boundaries is another condition for the separation of scales. It requires the assumption that the components of a system are unchanging and have a distinct boundary between them.⁴¹ When we talk about the relationship between misogyny and patriarchy, racism and capitalism, or racism and homophobia, etc. as interacting systems, we assume that they each have distinct and independent internal structures. We also assume that we can describe each system in isolation and determine its effect on other systems or the

⁴¹ The solar system, for example, is composed of celestial objects that each have a highly complex internal structure. But in large-scale description of Earth's orbit around the sun, the details about what happens on earth are irrelevant. Earth's and the other planets' behavior is assumed to be unchanging, with a distinct and independent internal structure in the model that represents their orbit around the sun. Such a separation allows us to describe the planets in isolation and to determine the effect of external forces on their motion. Thus, we can predict how the whole system would behave if a new celestial body were added to it.

overarching system. We make the same move when we think about racism as the pervasive ideology that manifests itself in individuals' minds. We assume that the racist beliefs of individuals can be studied and described in isolation. However, the validity of these moves and assumptions cannot be taken for granted.

Social explanation cannot always assume the separation and independence of levels. When we look at population-level properties over time for cases in which interactions among individuals are significant, the causal relations cease to remain at one level. At this point, it is common knowledge that we cannot describe, explain, or predict the behavior of each individual based on their behavior in isolation (Longino, 2019). There are some behaviors that are socially contagious and some changes at the individual level that change population-level behavior over time. For instance, researchers show that in certain situations, the employment of one or just a few individuals in a network can connect the whole network to job opportunities that were formerly unknown to the members of the network (Calvo-Armengol & Zenou, 2005). This process relies on word of mouth and the building of social capital by the original employees. In Khalid's case, although his employment does not change the overall unemployment rate, his employment status can have a contagious effect on others in his social network. Thus, if we don't limit the study of the phenomenon in question to a short period of time and if we consider interactions among individuals, his employment can have a higher significance than we originally thought.⁴²

The firmness of the structures and boundaries is another element whose violation undermines the assumption of independence of levels. As I mentioned in chapter one, strong

⁴² Thus, the proper unit of analysis is neither at the individual nor the group level. It exists across levels and requires individual-level description of Khalid's employment status as well as group-level description of his network, including the urban environment that they live in, the technology available to them, the history of poverty and under-resourced families, etc.

forms of methodological individualism rely on the assumption that individuals are the atoms of the social world and that their internal structures and boundaries are unaffected. Similarly, functional accounts assume modules with firm boundaries and solid internal structures. However, such assumptions seem unfounded for both individuals and groups. For instance, following Merleau-Ponty (1962), who locates subjectivity not in the mind or consciousness but in the body, Iris Marion Young argues that living in a patriarchal society leaves its trace on one's body and one's perception of one's body (Young, 1980). According to Young, the "process of growing up as a girl" to a great extent determines "the modalities of feminine bodily comportment, motility, and spatiality" (p. 153). Thus, it is in fact the case that most women in contemporary advanced industrial, urban, and commercial societies are so different from men that the "feminine" and "masculine" ways of throwing a ball are distinguishable. However, such a difference is not due to a mysterious feminine quality or essence common to all women by virtue of their sex; rather it is "a set of structures and conditions which delimits the typical situations of being a woman" (Young, 1980, p. 140). Similarly, one can trace the effect of interaction with the environment in a group, its internal relations, its available resources, etc.

In sum, the interdependency of levels and components violates the assumptions of functional explanation. In the cases discussed above, assumptions about differences in order of magnitude cannot be taken for granted, especially over time. Also, the internal structure of the components—which can be either individuals or groups—can be relevant and important. The essential point is that seemingly random facts at different levels can cause significant effects at the level where the robust causal relationships are. For example, the employment of one or just a few individuals can change the unemployment rate in a situation in which the causal relationship between the unemployment and high-school-dropout rates satisfies all the conditions for a

successful functional analysis. In these situations, the best explanation is across levels and in a timescale that is also determined by the phenomenon of interest.

5. Functional Decomposition

Most holistic accounts of explanation—such as structuralism, materialism, systems theory, and even the causal aspect of the interpretive method of explanation—rely on functional decomposition as at least a heuristic tool. Functional decomposition allows us to divide a big system like patriarchy into smaller and more manageable systems and naturally comes with the assumption that a set of minimally interacting systems and functions produces the overarching phenomenon. Thus, functional decomposition is an extremely useful tool in the study of aggregative systems in which overall behavior is a simple addition of the behavior of the parts and their functions (Wimsatt, 1986). However, very few interesting dynamical systems are strictly aggregative. In fact, in societies and in nature, systems with self-organization and reinforcement loops that are far from aggregative systems are the norm rather than the exception (for examples see Kaufmann, 1993, 1995; Nicolis & Prigogine, 1989; and Strogatz, 2003). Even in simple and isolated social systems, when they are possible, only a rough approximation of such strict aggregation of functions is useful. The problem is that such approximation in well-integrated systems either fails to explain a phenomenon altogether or leaves out very important components, thus making prediction or intervention very difficult if not impossible.

Functional decomposition is an important tool for many forms of holistic explanation because it facilitates dividing a big system into smaller and more manageable subsystems or components. In other words, decomposition comes with the assumption that a big phenomenon like racial inequality is the product of a set of subordinate functions performed in the system. Moreover, decomposition assumes that a small number of “minimally interactive” or independent functions result in the phenomenon in question. However, the more individuals in a

society, or in the society's systems and subsystems, affect each other, the less effective is functional decomposition, even as a heuristic tool. Systems with many interacting components that resist decomposition and/or localization are well-integrated in the sense that "the operations of different component parts are interdependent; that is, they more or less continuously impact each other's operations" (Bechtel & Richardson, 1993, p. xxxiii).

The success of functional decomposition is dependent on the presence of a sequence of events or operations. However, social systems often involve many causal loops in which something "feeds around" a hypothetical loop and "feeds back" to itself. Feedback loops are common in our explanation of the social world. For instance, Sally Haslanger (2012) argues that social practices consist of interdependent schemas and resources that mutually imply and sustain each other over time. Similarly, Anderson argues that segregation and racial discrimination are mutually reinforcing (2010, p. 64).

Systems with feedback loops resist decomposition or even "near-decomposition." Feedback loops can be negative (self-regulating) or positive (reinforcing). Negative feedback loops are especially important for controlling systems that maintain stability. For example, it is a well-documented phenomenon that in response to policies that are "too liberal" relative to public opinion, the public perspective becomes more conservative. And when policies are "too conservative," public opinion becomes more liberal (Erikson, Mackuen, & Stimson, 2001). Of course, when the general public is biased in respect to some issue, the "self-correcting" process will lead to a biased but stable equilibrium. Reactions and changes in public opinion around issues related to minority groups, immigrants, LGBTQ members, etc. are evidence for such a biased equilibrium and stabilizing feedback loop. In contrast to negative loops that resist change,

positive loops tend to amplify change and create instability.⁴³ For example, a strong backlash from the general public to some social or political issue that is unrelated to an individual's life or interest is an instance of such a feedback loop.⁴⁴ Many interconnected balancing and reinforcing feedback loops create a web of interacting elements that lead to the reality of our social world. Such a web is not decomposable to distinct parts with minimum or no interaction such that their operation is describable in a sequence of events.

Examples of well-integrated and non-decomposable systems are abundant in social philosophy and especially in feminist and anti-racist thought. For instance, intersectional feminists argue that the interacting effects of analytically distinct systems like racism and sexism are not necessarily decomposable in the study of oppression of Black women (for examples see Collins & Bilge, 2016; and Crenshaw, 1989). This insight has its echo in the work of economists and philosophers who emphasize the simultaneous and non-decomposable effect of economic systems and systems of oppression. For instance, socialist feminists have argued that because different forms of oppression are not distinct and independent, we ought to target capitalist patriarchy or capitalist white supremacist patriarchy rather than patriarchy (for examples see Young, 1990; Haslanger, 2018; and Jaggar, 1983). Even the dual system approaches⁴⁵ to oppression, which assume that there are only two overarching interacting systems, endorse such non-decomposability. Advocates of these approaches argue that “patriarchy was a system for managing sex, reproduction and childcare that intersected with the capitalist economic system that managed labor and production” (Haslanger, 2020, p. 223).⁴⁶ Therefore, they suggest that a

⁴³ For a complete analysis of feedback loops and their functions see Richardson (1991).

⁴⁴ This is what is commonly called the “band wagon” effect, referring to people who follow the first wagon in a circus just because there are others following it.

⁴⁵ The dual system approach is discussed in the work of Young (1990) and Fraser & Jaeggi (2018) and many others.

⁴⁶ Haslanger (2018) argues that the dual system model fails due to its biases.

proper explanation needs to encounter both systems simultaneously and that the systems are analytically and practically non-decomposable.

6. Descriptive and Normative Problems of Functionalism

What I call the descriptive problems of functional explanation manifest themselves as lack of explanatory and predictive power. Famously, economic theories that rely on functional decomposition fail to explain or predict financial crises or any other drastic transformation (Colander, 2011). Dismissing the interaction of individuals makes these theories incapable of explaining contagious behaviors, such as bank panic, that are often not in the self-interest of individuals.⁴⁷ Moreover, social and political theories that do not allow flexible boundaries for individuals and social entities as well as mutual interaction between them fail to explain the “capacity to develop or change internal structure spontaneously and adaptively in order to cope with or manipulate the environment” (Cilliers, 1998, p. 90). In other words, the assumptions behind functional decomposition do not allow us to explain how individuals and groups transform themselves over time. Whatever the unit of analysis, whether individuals or groups, dismissing their path in time, their internal structures, and their interaction with the environment makes explaining change and predicting the future impossible.

The use of functional explanation and decomposition has normative consequences as well. Functional explanation fails to guide our moral response to the phenomenon of interest either because of its level of abstraction or because of its presumptions about the system. If

⁴⁷ Bank panic refers to the situation in which a large number of people suddenly withdraw their money from banks because they fear their bank will run out of money, a fear that results from observing other people withdrawing their money. Hence, there is a reinforcing feedback loop that creates a snowball effect and can end up breaking the banking system. The more people fear losing their money, the more people withdraw their money from their banks. And as the number of people who withdraw increases, the more people panic. Of course, neither withdrawing the money nor causing their bank to default is in people’s self-interest. Also, there would be no snowball effect if individuals were not aware of each other’s fear. A similar story in terms of feedback loops can explain white flight in 1950s and 60s America. Neither phenomenon, bank panic nor white flight, is explainable or predictable with functional decomposition.

higher level entities are abstractions in the way that List and Spiekermann (2013) suggest, then intervention is either impossible or requires identifying an infinite number of realizations. Thus, unless there is a unique and finite set of sequential causal relationships at the same level, intervention is not possible. Even in that case, at some point we need a lower level and concrete cause in order to change the higher-level phenomenon. However, functional explanation, by assuming multiple realizability and abstract higher-level entities, cannot provide guidance for what that lower level entity would be. Moreover, our assumptions about the decomposability of the system, the existence of robust causal relationships at one level, and the lack of self-organization or a reinforcement loop can misidentify our target, misinform our intervention, or dismiss morally significant negative consequences.

Assuming decomposability misguides our collective moral response. For instance, in response to the account of misogyny and patriarchy of Manne (2018), Haslanger (2020) argues that it is a mistake to call patriarchy the target of feminist collective action. She says that we need to understand the oppressive system that controls women as both patriarchal and as “capitalist white supremacist nationalist ableist ageist heteronormative...etc.” (2020, p. 2). In other words, Haslanger endorses an analytical account of functionally identified patriarchy, but she argues that, in practice, patriarchy should not be feminists’ target. Although she does not mention it explicitly, Haslanger recognizes that the interrelations between different systems of oppression violate the minimal interaction assumption of decomposable or near-decomposable systems. Thus, focusing on one system without attending to the others is not only futile but can also lead to unintended negative consequences that have moral significance. For example, the interrelation between systems and individuals can recreate or transform the same oppressive system into some other form. Haslanger argues that “there was a gendered division of labor

before capitalism, and capitalism appropriated it and created a new formation that divided care and wage work in a distinctive way” (2020, p. 7).⁴⁸

Targeting only one of many interacting systems can backfire or waste collective effort. For example, as some⁴⁹ argue, controlling the means of production and controlling women in a society are interdependent. In other words, the economic system and patriarchy create a feedback loop in the sense that controlling women and their labor allows the control of the means of production and controlling the means of production creates a culture that controls women (for examples see Fraser & Jaeggi, 2018 and Young, 1990). In this situation, trying to liberate women without changing the economic system is futile, because the economic system recreates their domination repeatedly.⁵⁰ Similarly, changing the economic system without addressing the oppression of women is ineffective, because the new economic system adopts and utilizes patriarchy as well.⁵¹ Such an attempt can backfire and harm women and their social network (Khader, 2019).

To correct our target, Haslanger’s suggestion is to keep the big picture in mind and not assume that the analytical possibility for functional decomposition translates into a practical decomposition. The problem with this assumption is that it implies a relative independence of these oppressive systems from one another. Haslanger is right that “we are in this together” and that one cannot fight patriarchy without fighting racism and other forms of domination (p. 9). However, the level of complexity of the system can make it barely possible for individuals to

⁴⁸ Haslanger (2020) also argues that “Likewise the marginalization and exploitation of immigrant and captured others did not start with capitalism, but capitalism transformed those practices into a distinctive form of racial exploitation, expropriation, and forced relocation into chattel slavery”.

⁴⁹ For examples see Haslanger (2020), Fraser & Jaeggi (2018), and Young (1990).

⁵⁰ The same idea applies to other forms of domination. For instance, Tremain (2017) argues that the concepts of health and disability can be used by capitalism to medicalize disability and create a huge pharmaceutical market.

⁵¹ As Haslanger (2020) suggests, “It is not an accident that mass incarceration disproportionately affects those of recent African descent and that females are disproportionately trafficked; there are forces in addition to the forces of capital that are responsible for these patterns” (p. 7)

rely on functional analysis while correcting its shortcomings by having the big picture in mind. Functional decomposition leaves to our intuition the matter of which system of oppression can be left out as the aim of our collective action.

Haslanger argues that we ought to have the big picture in mind to avoid the risk of narrowing the proper target of our resistance. However, just having the big picture in mind will not solve the problem because there is a systemic trouble with our methodology. The disagreement between Black feminists and white feminists is an example of the general inadequacy of our intuition to understand the big picture and to correct the misguided assumptions of functional explanation. In fact, it is not clear how having the big picture in mind can correct issues like the centering of the experiences of relatively privileged members of an oppressed group in our analysis of separate oppressions. For instance, the Combahee River Collective (1986) argues that the very same analytic distinction that Haslanger offers between racial and gender oppression distorts their simultaneous operation in the lives of people who experience both.

In addition to taking for granted decomposability, assuming a single-level causal relationship can make some interventions more appealing than others while in practice they are ineffective. While functional analysis can make targeting and implementing policies an appealing option, the history of social change suggests that without multi-level change, top-down policy intervention can be ineffective or even harmful. Policies do not change everything that needs to be changed, and they cause backlash or other controlling mechanisms to get activated. Some of these controlling mechanisms can stay dormant for many years. In the mainstream understanding of policy interventions, a group or institution--like government--is seen "as a singular actor and a policy as an action taken by this actor" (Morcol, 2014, p. 11). Thus, policy is

an object that has impacts on a target population to generate an outcome (Morcol, 2014).

Therefore, we follow a sequence of events to see what policy we ought to use, and we follow the policy action to see whether it is in fact achieving the goal. However, neither the government nor the general population is a single actor that can just react to the policy.

Policies are created, implemented, and come to effect in a series of interactions with many levels and many social and individual entities. During the history of the liberation of women and of African Americans, focusing on policy change proved necessary but insufficient. For instance, the attempt to implement color-blind policies included the assumption that changing this higher-level social entity could effectively remedy the problem of social inequality (Anderson, 2010). However, many scholars⁵² point out that policies are implemented by people in the context of culture and history with all its inequalities and prejudices. The high rate of incarceration of African Americans and coded crimes that disproportionately target this group are evidence of the scholars' claims. Even worse can be the backlash from the general public in response to such policies. For instance, in response to some progress in integrating schools, more white middle class families moved out of the cities. This migration happened en masse because of the positive and negative feedback loops that effectively resisted top-down change. In response to not only this policy but also other implemented policies with different goals, the behavior of some families became socially contagious and created further advantages to moving and disadvantages to staying in the cities. The exodus of white middle-class families partially led to further mortgage discrimination, red-lining, and other discriminatory practices as well as to a permanent change in the structure of American cities, roads, public transportation, and other environmental factors.

⁵² For example Anderson (2014) or Alexander (2010).

Such failed policy interventions relied on a robust causal relationship between segregation and racial inequality at the aggregate level. However, what these interventions failed to take into account was the interdependency of these inequalities with many other systems in which individuals are embedded. Such interdependency creates self-regulating and reinforcing feedback loops that make it almost impossible to engineer society through top-down policy implementation in isolation from other methods of intervention at other levels. Things need to change at many levels, and to both explain and prescribe social change, we need to consider the interdependency of the individual, groups, and other social entities with one another. Moreover, an individual's preferences and decisions are not fixed and unaffected by their peers, their relations, their personal and historical paths, their culture, etc. If possible, a morally adequate intervention requires consideration of all these aspects so as to avoid unintended consequences. Thus, although the requirements for functional analysis are satisfied in the examples above, functional explanation has misguided our moral response or caused us to fail to see foreseeable negative consequences with moral significance.

7. Reconciliation

Chronic and complex social inequalities are instances of a certain kind of problem that requires a unique set of tools to be correctly analyzed. So far, I have showed that functionalism can respond to the claim that social entities and properties cannot, in principle, be causally efficacious. However, I showed that in the study of at least some very interesting social problems, functionalism and its fundamental tenet, multiple realizability, have important descriptive and normative problems. In what follows, I distinguish three kinds of problems each in need of distinct set of tools to investigate. This distinction explains the success and shortcoming of a holistic account like structural functionalism. My goal is to show that although

this account is successful in analyzing one kind of problems, it leads to descriptive and normative problems when it is applied to other kinds.

In his classical paper, “Complexity in Science,” Warren Weaver (1948) distinguishes three kinds of problems: problems of simplicity, disorganized complexity, and organized complexity. The first, problems of simplicity, involve only a few variables and are describable at multiple independent levels. For instance, the growth of population over time only involves two variables and can be possibly described equally well at the individual and aggregate levels. The only variable involved at the individual level is existence and at the population level is simply the aggregate of the value for that variable. In contrast, the second, problems of disorganized complexity, can involve billions or trillions of variables at the lower or individual level. For this kind of problem, statistical techniques, or what Weaver calls “the science of averages,” are the most useful. However, for this kind of averaging to be meaningful, we should be able to assume that there is no interaction among the components or the variables that represent them. In this situation, the whole or the higher-level entities or properties are just the average of the parts.

Functionalism and the multiple realizability thesis are best used for explaining problems of simplicity and problems of disorganized complexity. In fact, for problems of simplicity, methodological individualism and functionalism lead to the same results. Focusing on these kinds of problems also helps us to see why methodological individualists are concerned with exclusion argument and the redundancy of higher-level or functional explanations. For the problems of disorganized complexity, however, it seems that functionalism has a big advantage. Averaging billions or trillions of variables to find some correlation or orderly behavior at the higher level seems to be the only way to land any kind of explanation. More importantly, finding

the relationship between the averages can be helpful in finding new instances of the same social property or entity.

Weaver's third kind of problem, that of organized complexity, resembles neither of the other two kinds. A moderate number of variables are often involved in organized complexity problems. More importantly, there is a strong non-linear interaction among the variables and the components involved in such problems. Thus, no meaningful averaging can take place. These problems are often described in terms of their emergent properties since they involve a "sizable number of factors which are interrelated into an organic whole" (Weaver, 1948, p. 451). The organized complexity cases are the most interesting and relevant to the cases of social inequalities when organization emerges out of individuals' interactions and without any centralized force. More importantly, organized complexity occurs when the collective whole finds ways to store information and process it without any of the individual components that have access to such information or history.

The problems of organized complexity cannot be adequately addressed by statistical techniques and methods applicable to the other two kinds of problem.⁵³ The reason for this is that averaging and treating social entities as abstract entities require the assumption that the levels of description are independent. They also require the social phenomena to be decomposable to minimally interactive components that allow meaningful averaging methods. Therefore, applying functionalism or multiple realizability to organized complexity problems is

⁵³ Weaver argues that "The problems...are just too complicated to yield to the old nineteenth century techniques which were so dramatically successful on two-, three-, or four-variable problems of simplicity. These new problems, moreover, cannot be handled with the statistical techniques so effective in describing average behavior in problems or disorganized complexity" (1948, p. 451).

problematic even though these approaches are perfectly applicable to problems of simplicity or disorganized complexity.

The alternative to functionalism or any kind of explanation that relies on functional decomposition is inspired by recent advances in computation and simulation modeling. The family of approaches that addresses the problems of organized complexity is known as complex dynamic systems theory, which brings in radically different assumptions about the plausible explanation for social phenomena. According to this approach, not only can social entities like race and gender be causally efficacious, but social systems can also have novel and emergent social properties and be capable of self-organization. In the next chapter, I explain the mechanics of such an approach and discuss its advantages over the traditional functionalist and structuralist approaches to explanation. It is also important to note that intersectionality in sociology shares its fundamental tenets with complex dynamic systems theory.

8. Conclusion

Claims of social inequality and injustice are often criticized on the grounds that a real and reliable social explanation would be describable in terms of individuals and their attributes rather than in abstract terms involving elements like race, gender, class, or the like. Such an individualistic approach is often used to show that either there are no such race-, gender-, or class-related inequalities or, if there are, then they cannot play any causal role in our explanation. In fact, the causal efficacy of such “abstractions” is the greatest challenge for any form of non-reductive causal explanations. A functionalist approach to social explanation is one of the pioneering approaches to explanation that aims to address this challenge about causation at the higher level. Functionalists argue that higher level abstractions are realizable by a variety of individual level configurations; therefore, they are irreducible to a composition of individual-level properties.

Functionalism and its fundamental tenet, multiple realizability, has been criticized on multiple grounds in favor of methodological individualism. However, in this chapter, I provided an alternative objection for multiple realizability that acknowledges the usefulness of such an approach to explanation in the social domain while pointing out its possible limitations. I showed that functionalism and its fundamental tenet, multiple realizability, rely on the assumption that levels of descriptions are independent of one another. However, there are a variety of interesting and relevant cases for which such an assumption is invalid. I also argued that functionalism, like many other non-reductive and holistic approaches to explanation, relies on functional decomposition as a holistic tool. Again, I showed that for some chronic and complex problems in a highly integrated social system functional decomposition is a misleading tool. Moreover, I discussed the ways that the assumptions about the independent levels and decomposability can misguide our moral response to social problems. Finally, following Weaver (1948), I distinguished three kinds of problems that social explanation needs to address: problems of simplicity, problems of disorganized complexity, and problems of organized complexity. Although functionalism seems to be very useful for problems of simplicity and disorganized complexity, it seems to be inadequate for problems of organized complexity.

Chapter Four: Complexity Theory and Social Change

1. Introduction

A complete understanding of a phenomenon with moral significance or of a normative concept like oppression⁵⁴ needs to account for not only its harms but also the causes of those harms (Cudd, 2005, p. 22). For instance, the causal explanation of the unemployment of Khalid, a young Black man, informs and constrains the proper moral evaluation of his situation. The moral status of Khalid's unemployment is different if, on the one hand, the unemployment is voluntary and a matter of free and informed choice⁵⁵ or, on the other, the result of the employer's unfair discrimination against African Americans. Recognizing the appropriate moral response to a problem also requires a causal explanation that partially determines and constraints the options for intervention. Given that the causal explanation can be different depending on its underlying method of explanation and its underlying methodological and metaphysical assumptions, the conceptual explanatory framework that we use to inform our moral diagnosis and our moral response becomes significant. The aim of this chapter is to propose complexity theory as the proper framework for not only explaining a social phenomenon like oppression but also understanding the proper sites for social change.

Examples of the indirect influence of an explanatory framework and method of explanation in determining proper moral response are abundant. For instance, liberal feminism,

⁵⁴ By oppression I mean a social circumstance that affects the oppressed life in a systemic and wrongful way. Such an effect can be persistent and present in nearly all domains of the individual life (Silvermint, 2013)

⁵⁵ This assumes that it is possible to choose freely.

which explains gender oppression by relying on individualistic methods of explanation and, at least to some extent, on methodological individualism, defines patriarchy as the discriminatory attitude of sexist men. Thus, the goal of liberal feminism is to change and replace the problematic attitudes that cause inequality and disadvantage for women. Marxist feminism and Marxist thought in general are known for their use of a functional model of explanation. For Marxist feminism, patriarchy should be seen and defined in its relation to class oppression. Hence, at least according to some Marxist feminists, the proper aim of feminist action is to participate in efforts to eliminate class oppression. Finally, socialist feminists rely on a systems account of explanation to argue that oppression should be understood as a system and that systems of oppression are interdependent.⁵⁶ Thus, the proper target of feminist intervention cannot be just patriarchy or the system that oppresses and punishes women (Young, 1990, Ch. 1; also Jaggar, 1983).

My goal in this chapter is to push the conversation about explanation one step further and argue that social systems in general are systems with distinctive features for which the general individualistic and functionalist frameworks—which I refer to as the traditional frameworks of explanation—are inadequate. In the previous chapter, I argued that the behavior of social systems violates the fundamental metaphysical and methodological assumptions of traditional frameworks of explanation. In what follows, I argue that the distinctive features of social systems match the three key characteristics of complex dynamic systems, namely well-integration, emergence, and self-organization.

⁵⁶ Although the interdependence of oppressive systems is a well-respected phenomenon, theorizing such an interdependence has proved to be difficult if not impossible (for example see Walby, 2007). I will discuss this issue later in this chapter.

In the first section of this chapter, I start with the assumption that social systems are or can be well-integrated since they exhibit the consequences of such well-integration. For instance, social systems are sensitive to heterogeneity, rely on stabilizing feedback loops to resist change, and involve reinforcing feedback loops when they do change, etc. I further show that centering the interdependence of components in our analysis justifies the need for the complex dynamic systems framework of explanation by showing how social systems can have emergent properties and self-organize. In sections two and three, I discuss various metaphysical and methodological objections to key characteristics of complex and dynamic systems, namely emergence and self-organization.

2. Society as a Well-Integrated System

My goal in this section is to show that the best conceptual framework to explain social change is complex dynamical systems theory. Thus, I argue that changing social systems have the three key characteristics⁵⁷ of complex dynamical systems: they are well-integrated, they exhibit emergent behavior, and they can self-organize. I formerly⁵⁸ argued that society can be an example of a well-integrated system because it exhibits the features of such a system. In this section, I argue that a proper account of social phenomena and social change needs to explain the consequences of such well-integration, including the importance of heterogeneity and feedback loops as well as the emergence of non-linearity and stochasticity in the behavior of such systems. I also argue that the right ratio between stabilizing and reinforcing feedback mechanisms in a well-integrated system explains the possibility for emergent behavior and self-organization.

⁵⁷ These characteristics are framed by Gallagher and Appenzeller (1999).

⁵⁸ In the previous chapter.

2.1 Heterogeneity

Well-integrated systems are often heterogenous. An important shortcoming of the traditional frameworks that explain the behavior of systems with many interdependent causal components is in their treatment of heterogeneity. Take for instance their common assumption about independent levels. If levels are independent, then we can pick a unit of analysis at the individual or aggregate level and assume that the heterogeneities at the lower level are explanatory irrelevant. For example, according to the traditional frameworks, in the analysis of women's oppression, we can assume that the differences among women's experiences of oppression are either non-existent or explanatorily irrelevant.

Although the homogeneity assumption allows us to distinguish relevant information from noise, there are many exceptions in which assuming homogeneity is not justified. For instance, assuming a social group like women to be homogenous undermines the simultaneous effects of gender and racial inequalities on the lives of people who experience them (Combahee River Collective, 1986). Such variations of experience within social groups are the cause of their heterogeneity. The idea is that because individuals simultaneously belong to more than one group and are influenced by their various memberships, "No social group ... is itself homogenous, but mirrors in its own differentiation many of the groups in the wider society" (Young, 1988, p. 273). More importantly, such variations are not static; in fact, "Patterns of group differentiation are fluid, often undergoing rapid change." For instance, before the nineteenth century, "homosexuality did not serve as a basis of group ascription and identification" (Young, 1988, p. 273).

It is important to note that the importance of heterogeneity in explaining complex phenomenon is not limited to social systems and groups. For instance, landline telephone circuits

convert the human voice into patterns of electric oscillation and reconvert the oscillation into a vibration of air at the end of the line. Through this process of conversion and reversion, there are random oscillations of the wires' and the amplifiers' atoms, which create some noise and reduce the quality of the voice when it arrives at the receiver. Not only will we not lose any information by omitting the noise, but the quality of communication will be greater without it. In other words, a good telephone circuit, just like a good explanation, distinguishes noise from relevant information and deletes it through some averaging method, but as in audio feedback, deleting the noise can weaken our explanatory model.

Sometimes, the very same averaging method that is helpful in one context means no explanation in another. For instance, in a process called audio feedback, noise is the most important causal element without which there is no explanation. Audio feedback refers to the phenomenon in which a subject hears a loud howling sound due to a feedback loop between a speaker and a microphone that are positioned close to one another. Examples of this phenomenon are abundant in public address systems or wherever a microphone and a speaker create a loop in which the sound keeps getting amplified. In such a case, a random variation from the average in the microphone is the cause of the phenomenon. Thus, if through a process of averaging, like the landline circuits, we eliminate such deviation from our model, there can be no explanation. In other words, assuming homogeneity is not always justified since sometimes the relevant piece of information is lost in this assumption. Similarly, in explanation of a social phenomenon, important information is lost if we assume, for instance, that every woman experiences inequality just like the most privileged individuals in the group—in this case white, middle-class, non-disabled, and cisgender women—or even like the majority of women experience them.

2.2 Feedback Loops

Another important consequence of well-integration is feedback. We have a feedback loop whenever the output of a system loops back and becomes the input of the same system. In this situation, the causal chain forms a circuit or loop. Feedback loops are usually divided to two main groups: stabilizing or negative loops and reinforcing or positive loops. Negative loops are sources of stability and resistance to change (Meadows, 2008). In other words, negative feedback loops are a type of self-regulating mechanism that protects a system from perturbation and distress. On the other hand, positive feedback loops make systems unstable and are responsible for exponential growth. Individuals and entities can, for any particular purpose, be a part of a variety of balancing feedback loops.

Contrary to negative feedback loops, positive feedback loops can make systems unstable. They can also increase complexity, diversity, and sophistication. In other words, these loops are self-enhancing and can lead to exponential growth (Finegood, 2011, p. 217). Audio feedback is an instance of a positive feedback loop in which a small cause can spontaneously have very large effects through magnifying heterogeneity. Another example of a positive feedback loop is when unripe apples on a tree ripen overnight. The process begins with the first ripened apple, which produces ethylene, a gas that causes other apples to ripen. Thus, the apples in the vicinity of the first apple ripen and produce ethylene, a process that continues until all the apples ripen. The ripening of apples is also an instance of a positive feedback loop since, similar to the audio feedback example, the output of the same ripening system or mechanism, namely ethylene, feeds into the same system and functions as the future input, the ethylene that is necessary to make the next apple create ethylene and ripen. A famous social example for positive feedback loop is bank panic.

2.3 Dynamic, Non-linear, and Stochastic: Why Well-Integrated Systems are Dynamic and Complex

Feedback loops explain why some systems are dynamic, non-linear, and complex and exhibit stochastic behavior. Well-integrated systems are dynamic since feedback loops connect their present state to their future in a way that is not possible to study a-temporally. This connection in time also explains why systems have non-linear behavior. A linear system is a system whose output is independent of its future input. For example, we can imagine that we need two units of ethylene for an apple to ripen. Thus, if we have a linear system that receives ethylene as input and gives ripened apples as output, we need 200 units of ethylene to produce 100 ripe apples: the input and output have a proportional or linear relationship. Also, the input and output are independent of one another in the sense that the present output, ripened apple, does not change the future input, or the amount of ethylene that is necessary to ripen the next apple. In such a system, the only natural and internal change that we can expect is decay or decrease in the efficiency of the ripening system.

In contrast, the ripening apple system is non-linear if, instead of containing isolated apples with no interaction, the apples are in the vicinity of one another. Thus, when one apple ripens and produces ethylene, this causes other apples in its vicinity to ripen as well. Making the first apple ripen creates more ethylene and reduces the amount of ethylene that we need to make the next apples ripen. Thus, not only is the output no longer proportional to the input but also explaining the system requires observing its behavior over time. In sum, a system with a feedback loop exhibits dynamic and non-linear behavior: dynamic because time matters, and the proper explanation of the system's behavior cannot be ahistorical and nonlinear because the

output of the system with non-isolated apples is not proportional to the input or the amount of ethylene that is necessary to ripen apples in isolation.

Systems with many well-connected components involve many interrelated and sometimes accidental feedback loops, which make the systems complex and lead to stochastic behavior. The difference between the linear and non-linear ripening system is in the level of connectivity among the apples. In the linear system, apples are fully isolated, so their behavior is independent of one another. In the non-linear system, however, their vicinity and sensitivity to each other's behavior makes important differences. One of these differences is the likelihood of spontaneous feedback loops emerging that create a reinforcing network of ripening apples. Such a network is obviously sensitive to the heterogeneity of many components. For instance, the distance between the apples, amount of ethylene each produces or needs for ripening, and topography of the network can all change the length of time or amount of ethylene that the non-linear system needs to ripen all the apples.

A non-linear system like the ripening apples exhibits a somewhat stochastic or unpredictable behavior because there are many variables that are highly sensitive to heterogeneity, in other words, because the system is complex. The level of stochasticity can vary based on the number of elements that are relevant and the degree of connectivity among the components. For instance, if for some reason the apples were moving around randomly, their accidental connections and feedback loops would change. In this case, the overall ripening pattern would be, in principle, unpredictable and stochastic even if each apple followed a deterministic path to ripening.

2.4 Well-Integrated Systems at the Edge of Chaos

The interconnected web of feedback loops is the most important feature of a “well-integrated system,” in which “the operations of different component parts are interdependent; that is, they more or less continuously impact each other’s operations” (Bechtel & Richardson, 1993). However, the complex behavior of some well-integrated systems has an important difference from other systems. A precise tension between amplifying and dampening feedback can put a well-integrated system at the edge of chaos, which is a state between order and disorder that has a high level of complexity. At this edge state, components neither resolve into a chaotic pattern of behavior nor lock themselves in a fully regular and ordered pattern.

Also, at the edge of chaos, systems are adaptive and able to respond to both internal and external turbulence in a creative and unpredictable way. As I will explain shortly, the unpredictability of a system at the state between order and disorder is constructive and leads to more order and sophistication. Also, the amplifying and counteracting feedback loops lead to integration or diversification as well as to differentiation, all which increases complexity. In other words, systems in this critical state exhibit emergent properties and can self-organize.

2.5 Complex Dynamic Systems

Well-integrated systems are radically different from other systems, and the proper method of explanation for these systems is radically different as well. Complex dynamical systems theory is the alternative framework that is most compatible with the radical differences between well-integrated systems and other systems. Its emphasis on relationships and connectivity, networks, and dynamic patterns of behavior is fundamental to systems theory since investigation restricted to components and their properties has proven to have less use. In sum, the differences between well-integrated and less integrated systems justifies the need for a

distinct explanatory framework like complex dynamic systems theory or complexity theory for short.

The importance of a framework based on complexity theory lies in its unique set of conceptual assumptions and the set of heuristic and justificatory tools on which it relies. The conceptual assumptions of complexity theory are different from traditional frameworks of explanation because in well-integrated systems, the unit of analysis, time frame, and preferred method of explanation cannot be assumed a priori. The heuristic methods are also different from those of traditional frameworks since well-integrated systems are non-decomposable.

Well-integrated systems and complexity theory violate the fundamental assumptions of traditional frameworks of explanation.⁵⁹ Since well-integrated systems violate the separation of levels, the unit of analysis often exists at multiple levels and involves heterogeneous and sometime unintuitive components. Thus, it is not possible to adequately describe the behavior of a system at only one level. In other words, in the explanation of many social phenomena, not individuals, nor their psychology, nor groups of individuals are the proper unit of analysis. For instance, Charles Tilly argues that the proper unit of analysis in social protests “often consist[s] not of (just) living breathing whole individuals but of groups, organizations, bundles of social ties, and social sites such as occupations and neighborhoods” (2005, p.61). Moreover, the dynamical nature of well-integrated systems, due to the influence of many interrelated feedback loops with many different time scales, explains the inadequacy of ahistorical models or models with limited time frames. For instance, Khalid’s unemployment might in fact be due to his very limited education if we consider the boundaries of the relevant time frame to be limited to his job search process. However, in a longer time frame that includes the history of redlining, the proper

⁵⁹ In previous chapters, I discussed three fundamental assumptions of traditional frameworks of explanation: the unit of analysis, time frame, and reductive method of explanation.

causal explanation for his unemployment is likely to be different. Finally, reductive methods of explanation are insufficient to describe or predict important characteristics of the systems. The interrelation among the components of a well-integrated system resists such a reduction since reduction requires dismissing the interrelation among positive and negative feedback loops.

Common heuristic tools are not useful for understanding well-integrated systems, which resist the decomposition and localization that are fundamental methods of discovery for most accounts of explanation. Assuming that a complex phenomenon is decomposable or near decomposable presupposes that it is the product of a set of subordinate functions. Such decomposition can happen at the level of individuals, groups, or systems and assumes a small number of “minimally interactive” or independent functions that explain the phenomenon in question. For instance, in the linear ripening system, we assume that the apples and their ripening pattern are fully independent of one another, which makes it easy to decompose the components of the system and localize the cause of each event. For example, we could have a line of apples in which each apple can only influence the ripening process of the apple that is next in line. In this case, the system is at least near-decomposable since we can still follow the sequence of events and decompose the whole process into smaller, minimally interactive parts. However, if each apple can influence and be influenced by the ripening process of more than one apple, then the components are neither minimally interactive nor easily describable in a sequence of events. The higher the number of interrelations, the harder it is to decompose the system or localize the parts. In such a setting, all apples are or can be somewhat responsible in all steps. In sum, a complex network of connections can create a well-integrated system that is resistant to decomposition and localization.

Complexity theory requires a different set of conceptual, mathematical, and heuristic tools for explaining the behavior of well-integrated systems. Connectivity and relations are necessary for the emergence of well-integrated systems and their complex behavior. Thus, instead of understanding the features and attributes of the components—or, in social explanation, the individuals—and then adding them up to understand a social phenomenon, the focus of a proper method of explanation needs to be the relations and interactions among the components. This focus cannot be accompanied by a commitment to any a priori determined unit or level of explanation. Therefore, assuming units and understanding them is fruitless and potentially misleading. Complexity theory relies on alternative tools such as network theory, game theory, graph theory, fractal analysis, recurrence analysis, and the like that are capable of understanding the relational aspect of the system without assuming any level of explanation or unit of analysis.⁶⁰ Complexity theory also does not make any commitment to the possibility of decomposition at any level or to any specific level of explanation.

Although few and still limited, due to limited available data, there are strong and groundbreaking studies that rely on the complexity model to describe and predict system-level change related to social issues. For instance, Christakis and Fowler (2009) show that the growth of obesity in a community is best described through an interrelated network among individuals.⁶¹ They evaluate a densely interconnected social network of more than 12,000 individuals over 32 years period to see whether the number and nature of the individuals' social ties can influence their likelihood of gaining weight. They show that obesity can spread like a disease from person

⁶⁰ For more information about fractal analysis and recurrence analysis, see Richardson & Chemero (2014).

⁶¹ Christakis & Fowler, *Connected: The surprising power of our social networks and how they shape our lives.*, (2009)

to person or through social ties.⁶² Their study and many other studies⁶³ show that elements other than the individuals' eating habits or their genetic disposition play important roles in the obesity epidemic. Thus, the consensus is that the proper framework of explanation for understanding such an epidemic and finding the proper method of intervention needs to be complexity theory. Another example of recent use and success of this theory is the network approach to terrorism (Sageman, 2004). Network researchers suggest that understanding the dynamics of terrorist networks can guide effective intervention (for examples see Pedahzur & Perliger, 2006; Carley, 2006; and Farley, 2003).

So far, I have argued that social systems can be well-integrated systems mainly because of the level of connectivity among their components that creates a nexus of positive and negative feedback loops. However, endorsing the idea of society as a well-integrated, complex, and dynamic system has metaphysical and ontological implications, some of which have been greatly criticized in the philosophical literature related to social explanation. The emergence of system-level properties that are not explainable in terms of the properties of the system's components and the self-organization of systems without a central planner are among the highly controversial characteristics that raise metaphysical and ontological concerns. My goal in the next two sections is to show that both emergence and self-organization are possible in well-integrated systems like societies. Thus, there is at least not an a priori reason to reject a social explanation just because of its reliance on emergence and self-organization.

⁶² "A person's chances of becoming obese increased by 57% (95% confidence interval [CI], 6 to 123) if he or she had a friend who became obese in a given interval. Among pairs of adult siblings, if one sibling became obese, the chance that the other would become obese increased by 40% (95% CI, 21 to 60). If one spouse became obese, the likelihood that the other spouse would become obese increased by 37% (95% CI, 7 to 73). These effects were not seen among neighbors in the immediate geographic location. Persons of the same sex had relatively greater influence on each other than those of the opposite sex" (Christakis & Fowler, 2007, p. 370)

⁶³ For more information about this topic, please see Finegood (2011).

3. Emergence

Discussion of the metaphysical possibility of emergent properties has a long history in both philosophy and the sciences. Although emergence is the second key characteristic of complex dynamical systems, many social philosophers doubt the legitimacy of social explanations when they imply or assume the possibility of emergent systemic properties. For instance, Cudd (2005) argues that Hegel's recognition theory of oppression is untenable because of its reliance on emergence. According to Hegel, the struggle for recognition among different social groups is similar to the master/slave dialectic. Hegel recognizes a common pattern of struggle that explains how the dominated social group gains recognition. He suggests that usually a dominant social group exploits and disrespects a dominated social group. This domination leads to a life-and-death struggle between the social groups that ultimately forces the dominant one to recognize the dominated, changes the class structure in society, and creates a new structure and/or form of domination.

Cudd (2005) argues that Hegel's recognition theory is problematic since it "posits forces at the social level that are emergent from the individual level; that is, there is no posited causal connection between the social force of the struggle for recognition and the individuals that compose the society" (2005, p. 40). According to Cudd, the explanations that rely on an "emergent social force are ruled out by the ontological criterion of causal fundamentalism" (2005, p. 41). This criterion, also called supervenience individualism, is the idea that individuals and their attributes exhaust and determine the social world.⁶⁴

Cudd (2005) is not the only one who considers theories that rely on emergence to be metaphysically untenable.⁶⁵ In fact, her reservation about the legitimacy of emergence in social

⁶⁴ Cudd (2005) defines this criterion as: "macro-level causes supervene on micro-level ones" (p. 38).

⁶⁵ For a more in depth discussion about this topic, see Elster (1983).

explanation is rooted in a metaphysical and ontological concern. Kim (1999) artfully formulates this sort of metaphysical concern about emergence in the form of a dilemma, according to which, emergent properties are irreducibly novel properties of a system that are neither predictable nor explainable in terms of the properties of their constituents. Thus, Kim argues that the metaphysical position of emergence is unstable because it exists in the middle of two contradictory positions. For instance, in the philosophy of mind, emergentists deny reductivism, or the idea that mind is reducible to the body, as well as dualism, or the claim that mind and body have completely independent natures.

Emergentists need to show that there is a stable position between reductivism and dualism while they endorse physicalism,⁶⁶ which assumes that physical components exhaust and determine the mind and mental activity. However, Kim argues that if, on the one hand, emergentists stay committed to physicalism, they must also endorse reductivism because if the mind is physical, then it is governed by physical laws and reductively explicable. But, on the other hand, if they deny physicalism, then they must endorse some form of metaphysical dualism, which implies that the nature of the mind is not physical. The first horn of the dilemma contradicts the definition of emergence, and the second horn is metaphysically untenable.

In social explanation, the parallel dilemma is to find a stable metaphysical position between reductive individualism and some kind of dualism, which assumes that social entities are fully independent of individuals and their attributes. For instance, in the discussion of social change, on one side, the reductionists argue that culture, ideology, and social structure are nothing above and beyond common attitudes and beliefs that are explainable in terms of individual attributes and their social organization (Ikegami, 2000). They argue that there is no need to consider

culture, for example, in social explanation since it is already accounted for when we consider individual attributes. On the other side, advocates of cultural analysis and critique argue that culture plays a constitutive role in the explanation of the existence and persistence of social problems. However, they argue that culture is not explicable in terms of individuals' beliefs, attitudes, and/or organization. In other words, their general idea is that "culture matters, and further, culture is not just a matter of individual psychology or political institutions" (Cohen, 1978/2000, p. 10). From this approach, culture is a net of "semiotic relations" that enables and constrains coordination within and between human as well as non-human social groups (for examples see Haslanger, 2020; Sewell, 2005). Individuals and their interactions, then, are the generators and creators of culture, while without culture, individuals' interactions and coordination would be impossible. Thus, the dilemma is to show that culture is irreducible to individuals and their attributes without assuming some form of dualism about culture.

In respect to the dilemma Kim formulates, a plausible account of emergence needs to satisfy three related conditions. First, endorsing emergence should not require endorsing the existence of any supernatural power or unnatural entity. It is important to note that this criterion does not imply that the unit of analysis in social explanation ought to be individuals in a sense that excludes from the explanation their biology, their built and natural environment, their network, or their history. This condition also rules out accounts that assume mind-body dualism or, at the social level, assume a super-individual with intention, desires, or needs similar to those of individuals. Second, emergence happens at the aggregate or system level and involves novel properties that are irreducible to the properties of individuals or components. Third, emergence involves synchronic determination⁶⁷ in the sense that a difference in the system's properties

⁶⁷ This is stronger than supervenience individualism since it assumes a causal dependence in synchronic determination, as Boogerd et. al, (2005) argues.

cannot exist without a difference in the properties of individuals and their organization. Although synchronic determination is a condition that guarantees dependence between levels, it is not quite the same as supervenience individualism or the idea that individuals and their attributes exhaust and determine the social world. Thus, a systemic property is emergent if complete knowledge of the arrangements and the properties of the parts is inadequate to explain or predict novel properties at the system level (Boogerd et al., 2005).

An account of emergence that avoids the metaphysical dilemma and satisfies the conditions of plausibility needs to expand the definition of emergence beyond the abstract relationship between behavior of the system and its components. For instance, in his definition of emergence, C. D. Broad provides an alternative account of emergence and reducibility that involves contrasting the behavior of the components in the system and their behavior in isolation or in simpler systems. According to Broad, “A collective disposition is reducible if the presence of this property in a compound substance is logically entailed by the dispositions which its constituents manifest in other circumstances and the special relations which they stand to each other in this substance” (1925, p. 268). Thus, a systemic property is emergent if, even in principle, it cannot be deduced from the behavior of the components in a simpler system. The emphasis is on comparing the actual system with a simpler system of which the components could be a part. This definition is especially useful in social explanation because the abstract metaphysical relationship between components presupposes their existence outside of any system. However, there is no such a thing as individuals in absolute isolation. This is because first, if we reject dualism, an embodied individual cannot exist without a body or an environment that nourishes the body. The coupling of the body, environment, and the whatever we define as

the individual is,⁶⁸ or at least can be, a system. Second, an individual without any other human interaction barely behaves in the way that we expect in order to explain how our social systems work (Longino, 2019).⁶⁹ Thus, the most explanatorily useful definition of emergence would compare the individual's behavior in different systems with different levels of complexity because individuals only exist in systems.

Relying on Broad's account of emergence and reducibility, Boogerd et al. (2005) argue that there are two conditions under which emergence is metaphysically possible. Meeting either of these two conditions can potentially refute the first horn of the metaphysical dilemma, the idea that emergent properties are explicable in terms of the properties of the constituents. As mentioned above, the more useful definition of emergence defines irreducibility in terms of logical deduction of the emergent property from the properties of the components in simpler systems. This definition replaces irreducibility with non-deducibility since the latter is sufficient to obtain the former. Moreover, the more useful definition draws a contrast between the properties of the components in two systems with different complexity levels. Thus, there are two logical possibilities or two conditions under which emergence is possible or under which a system-level property is irreducible to the properties of the constituents. According to the first condition, emergence is possible when the system behavior is in principle not decomposable or analyzable in terms of the behavior of the constituents. According to the second condition, emergence is possible when the behavior of the components is highly dependent on the system of which they are a part. Boogerd et al. (2005) call the former condition vertical and the latter condition horizontal. The vertical condition of emergence is met when deduction of emergent

⁶⁸ For a detailed explanation of such coupling see (Chemero, 2009, 2018; and Richardson & Chemero 2014).

⁶⁹ Moreover, the non-linear and stochastic behavior of social systems makes it in principle impossible to rely on the individual's behavior in the actual system in order to explain the emergent properties.

behavior from the constituent's behavior is impossible. The idea is that when the behavior of a system is non-decomposable or unanalyzable in terms of the behavior of its subsystems or parts, it cannot be deduced from the behavior of the parts either. Thus, since well-integrated systems and some of their system level properties are in principle non-decomposable or unanalyzable, they can meet the vertical condition.

As mentioned in the previous chapter, decomposition is an important tool for analyzing complicated systems because it allows us to divide a system into smaller and more manageable parts. Thus, a system is decomposable when it meets two conditions. First, the behavior of the system must be a product of a set of subordinate functions or subsystems that have minimal or no interaction. However, by definition, well-integrated systems are composed of well-integrated components whose behavior continuously and mutually shapes and forms the behavior and even the structure of other components. Thus, the components can rarely be distinct and minimally interactive. Second, in a decomposable system, the effect of the components needs to be describable in terms of a roughly linear sequence of events. However, as I previously explained, the many interconnected feedback loops in a well-integrated system create a nexus of components and relations that engage with many components all at once. In other words, the change in well-integrated systems through time is not in principle describable in terms of change or activity in distinct parts that happen in a linear sequence.⁷⁰

Meeting the horizontal condition requires a radical and fundamental difference in behavior of the components in two systems with different levels of complexity. According to the horizontal condition, deduction is impossible when the behavior of the constituents is not predictable or deducible from their behavior in isolation or in other systems. In other words, if the components

⁷⁰ The comparison between simple and more complicated domino examples can be illuminating for understanding the importance of sequence in explanation.

are malleable to the point that not only their behavior but their dispositions and to some extent their internal structure are dependent on the system of which they are a part, then they meet the horizontal condition of emergence. In well-integrated systems, “the operations of different component parts are interdependent; that is, they more or less continuously impact each other’s operations” (Bechtel & Richardson, 1993, p. xxxiii). Thus, the number of influencing components and degree of connectivity partially explain the behavior of the components, their affordances, and at least to some extent, their internal structures.

Culture can be a candidate for emergent behavior in a social system and a potential site for social change. Haslanger argues that since coordination across highly variable circumstances is cognitively too demanding, humans need to rely on tools and methods that make coordination in and between social groups possible. Moreover, she argues that these tools require “social learning, reliable cross-generational transmission, material and technological resources to build on what came before” (2020, p. 8). Thus, according to Haslanger, humans and other social animals rely on culture to enable coordination in a social group and to provide incentives for members of the group to act in accordance with terms of coordination. Such coordination can happen at the level of groups, institutions, or nations and also from interaction among these levels. In fact, according to Haslanger, culture is the basis for interpersonal connection and can be understood as a network of interrelated cultural practices.⁷¹ These practices are the products of social interaction and social learning and evolve through responsiveness to both each other and the material world.

Culture satisfies the vertical condition because, by definition, it is non-decomposable or unanalyzable in terms of the behavior and function of its components. Culture is a network of

⁷¹ According to Haslanger (2020), social structures also consist of interconnected practices.

interrelated meaning that guides individual action, but individuals are not its passive recipients. In fact, there is a mutual dependency relationship between individual and culture. A network of interrelated practices that involve relations among individuals and with the material world is in principle non-decomposable since it can rarely have completely distinct and minimally interactive components. For instance, Haslanger states that “It is not hard to see how the practice of distributing knowledge through academic lectures is connected to the construction of universities, the employment of professor, the matriculation of students, the provisions of room and board, the funding for research and study, and the rest” (2020, p. 246).

Moreover, practices are the result of a looping effect or feedback loops among individuals, their resources, and the social meaning that assigns values to objects and activities. Thus, it is impossible to describe the emergence of culture or cultural practices in a linear sequence of events, which is another requirement for decomposability in a system. It is important to note that physical, social, and spatial segregation of people or resources can potentially group sections of the society together in such a way that their interaction can be describable in a sequence. However, such instances are the exception not the norm, and the decomposability conditions, namely minimal interaction and sequentiality, will not last for long.

The influence of culture on an individual’s action satisfies the horizontal condition as well. Culture exhibit something like downward causation, which implies that the behavior of the system’s components is partially dependent on the system of which they are a part. In other words, “People become people only when they enter into culture” (Balkin, 1998, p. 18). Similarly, Haslanger (2020) elaborates the mechanism by which individuals and their behavior change through their involvement in a network of cultural practices or in a social system. Such a network is causally significant since it influences action by shaping the individual’s tools, habits,

skills, and to some extent, “strategies of action.” In other words, although people use their intelligence to collectively create tools, culture, or terms of coordination to interact with the world, “these tools simultaneously endow their users with new kinds of intelligence” (Haslanger, 2020, p. 12). New tools or different cultures allow users to experience and interact with the world differently, which can shape and change the users as well.

It is important to note that beyond changing strategies of action, culture can change the concrete and material existence of components. For instance, Iris Young argues that the culture that emerges in contemporary, advanced, industrial, urban, and commercial societies defines the feminine and masculine ways of being in ways that leave their traces on “the modalities of feminine bodily comportment, motility, and spatiality” (1980, p. 153). Her idea is that contrary to other social systems in which women’s manual labor is part of their gender role, the social practices that define gender roles in modern and industrial societies change and police women’s bodies in a way that shapes their bodies differently from others. Culture can and does influence the physical and natural environment as well. For instance, cultures that value sedentary lifestyles and office jobs invest less to make their environment walkable and rely more on motorized transportation. Disinvestment in making sidewalks or places to walk and relying on motorized vehicles create a feedback loop that is both enforced by culture and also changes the culture. But it also changes the physical environment, city planning, etc., as well as contributes to the obesity epidemic (Finegood, 2011).

Understanding culture as an emergent property has many important consequences, especially when we consider culture as a potential site for social change. For instance, culture is an emergent property of social systems, so any change in culture will accompany change in individuals’ beliefs and attitudes and vice versa. In other words, the relationship between

individuals' attributes and culture is a synchronic determination. However, a society in which individuals realize misinformed and wrong beliefs and attitudes about, say, race and racial differences, cannot achieve a healthy or unproblematic culture from such a realization.

Moreover, the interrelated nexus of cultural practices allows racism and race related injustices to shape virtually all social and cultural practices in the society. As a result, there may not be any innocent social or cultural practice that is not influenced by racism, racial discrimination, or racial inequality.

Understanding culture as an emergent property allows us to see the interdependency and interwovenness of culture with many other aspects of the social world, and we can see that culture cannot be an isolated component that can be altered to achieve progress in social change. Thus, especially for social issues related to gender and race, because of their long history and deep influence on culture and cultural practices, an update to all or many aspects of culture, social structures, and social systems, as well as to everyday life, might be necessary. For instance, we need to realize that making positive change in culture might not be possible without changing housing and school segregation, the criminal justice system, the economic system, etc. It might also not be possible without changing norms about beauty, strength, excellence, etc.

4. Self-Organization

Self-organization is the third key characteristic of complex dynamical systems. Although the existence and emergence of self-organization is not news for many scholars who are concerned with complex systems like ecology, the economic system, society, and the like, traditional methods of explanation, especially in analytical social philosophy, categorically dismiss the legitimacy of accounts that rely on self-organization. The problem is that understanding self-organization through the lens of methods that cannot adequately capture complexity and dynamic interactions and relations among the components is quite counter-intuitive. For instance, the

claim of self-organization is similar to the claim that a set of scattered dominos in a room can gradually and without any external force put themselves into a line and preserve energy. It is also like the claim that a spring can stay compressed without any external force that compresses the spring. In other words, self-organization implies that systems can get more ordered without any external force or entity to impose that order, as in the domino case, and that they can exist far from their equilibrium state, as in the spring case. Of course, self-organization in social systems is different from dominos or the spring example because of the high level of complexity of individuals and the capabilities. However, my goal is to show that if self-organization is possible in much simpler systems than society, then there is good reason to believe that it is possible in social systems as well.

Since dominos do not get more ordered on their own and springs don't stay compressed without an external force, many social philosophers are skeptical about the idea of self-organization. For instance, John Elster (1983) argues against Foucault's explanation for the maintenance of social discipline by means of penal systems. Foucault argues that penal systems divide the society into people with and without criminal charges, a division that remains even after the sentence is served. Such a grouping is, according to Foucault, causally important to maintain discipline in society. However, Elster argues that since there is no agent who designed the system to have such a consequence and that the consequence is explaining its own persistence, Foucault's account is problematic. In other words, Elster argues that self-organization or the emergence of order without any external or central planner is not possible. Similarly, Cudd (2005) suggests that the problem with Foucault's account is that it assumes "some lurking social force involved, yet of indeterminate origin and grain" (2005, p. 40). My goal in this section is to show that without any lurking or unnatural force, self-organization is

possible in some well-integrated systems. Therefore, it is not plausible to categorically rule out the plausibility of an explanation because of its reliance on self-organization.

Well-integrated systems that exhibit self-organizing behavior have at least three common features. First, they are open in the sense that there is a flow of energy, matter, or other relevant elements to the system from the environment. Fully closed systems decay, so they lose order over time and all the components become homogenous. For instance, someone's footprint on the beach will gradually decay and the grains of sand go back to a homogenous distribution if no external force maintains their order or, in this case, pattern.

Second, these systems with self-organizing behavior have the right level of connectivity that can translate into the right ratio between the stabilizing and reinforcing feedback loops. This ratio puts the system far away from equilibrium because of the positive feedback loops while maintaining some level of order due to the negative feedback loops. Third, these systems can exhibit regularities that arise, without a leader or plan, from the interactions among the components of the system. For instance, when hundreds, or thousands, of birds fly in coordinated but complicated patterns through the sky, their system is self-organizing.⁷² Although the movement of each bird is clearly dependent on the others, no bird determines the movement of the group.

The self-organizing ability in a flock of birds is dependent on their mutually responsive interaction in the sense that birds follow each other but, at the same time, constrain and correct each other's movements. In other words, the movements of a flock of birds is a more advanced and complex version of the non-linear system of ripening apples. Because they follow each other, a random or whimsical move of one bird to the right, for instance, can make a subgroup of

⁷² A flying group of birds is obviously not an example of a closed system.

birds move to the right. In a sense, there are positive feedback loops that magnify the random deviation to the left from the average move of the whole group. In other words, the spontaneous grouping is the result of positive feedback loops that magnify heterogeneity. Moreover, for the very same reason, namely their mutual responsiveness, many random deviations from the average movements will be masked and counteracted. For instance, if a bird or a subgroup of birds moves to the right while the whole group continues to the left, the bird or subgroup corrects their movement and returns to the larger group. In other words, the overall grouping of the birds is maintained by negative feedback loops that counteract heterogeneity in the birds' movements.

If self-organization is possible in a flock of birds, there is no reason to believe that it is impossible in a human social system with the right conditions. In fact, important elements of the murmuration of birds are similar to “how coordinated social behavior can result spontaneously from the interactions of agents” (Richardson & Chemero, 2014, p. 40). First of all, social systems are not and cannot be completely closed. Not only do they rely on environmental and natural resources, they also usually rely on material and information, as well as on human, social, and cultural capital that exceed the boundary of their social group.

Second, with the right level of connectivity among components or individuals, social systems can create a well-integrated system that exists at the edge of chaos. Environmental, political, technological, and many other factors can externally or internally alter the level of connectivity in a social system or among members of a social group. But with the right level of connection, social groups have dynamic, non-linear, and unpredictable behavior. Finally, and most importantly, social systems can self-organize or coordinate their interactions without an individual, a group of individuals, or a plan to guide them.

Examples of self-organization without a central organizer are abundant in social systems and social groups. For instance, when individuals navigate through a crowd, we often see spontaneous groupings that make their navigation easier. Tasks that are even more complicated than wayfinding in a crowded space can be easier to finish when individuals group together. For instance, scientific communities coordinate and cooperate to solve complex problems without a central organizer to decide which group should work on which aspect. In fact, since the epistemic landscape is unknown to the scientists, it is not possible to have a central organizer who divides the cognitive labor among the groups (Weisberg & Muldoon, 2009). Instead, there are interpersonal and intergroup mechanisms that facilitate groupings that allow the groups to solve complex problems and finish complicated tasks. Such mechanisms utilize the resources and the interpersonal ties between the individuals and groups. They also rely on a culture in scientific communities that praises certain strategies, such as investing in projects with very high impact but low chance of success.

In sum, self-organization in social systems is not only possible but also plays an important role in social explanation and social change. In fact, cultural practices that enable and constrain individuals' interactions emerge from the decentralized coordination of individuals in those interactions. For instance, Bourdieu argues that practices "can be objectively 'regulated' and 'regular' without in any way being the product of obedience to rules, [and] objectively adapted to their goals without presupposing a conscious aiming at ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conductor" (1972/1977, p. 72). Similarly, Haslanger (2020) argues that although none of us designed or created the cultural narrative of the gendered division of labor, the division enables us to coordinate our actions in raising children. Thus,

social systems self-organize to make complicated tasks possible. Such self-organization can group individuals with their race, gender, class, etc. or change their biological or psychological abilities to the point that their individual differences reinforce the organizations and groupings. Thus, it is necessary to consider the possibility of self-organization not only to explain how systems exist or persist but also why individuals develop different traits or features. Moreover, to obviate wide-spread social problems, it is sometimes necessary to address the social and cultural practices that enforce the groupings of individuals and their related advantages or disadvantages.

5. Conclusion

Complex dynamic systems theory, which is often called complexity theory, provides an approach to explanation that is quite distinct from the traditional structural functional approach or systems theory. For one, the complexity approach avoids over-generalizations by assuming homogeneity. Theorizing the divisions within the category “women” by class, race, ethnicity, and their relevance is possible in the complexity framework of explanation (Walby, 2007). Complexity theory further challenges the traditional approaches to systems theory by providing the ability to theorize far from equilibrium states. It is no longer necessary to stick with stable pattern of aggregate behavior or law-like generalizations to explain any social phenomenon. In fact, the notion of equilibrium states in which most deviations from the norm would be counteracted via a negative feedback loops are no longer necessary for social theorizing. This challenge for the traditional explanatory frameworks is mostly because of the discover of positive feedback loops that keep systems far from equilibrium states (see Arthur 1994; David 1985).

Complexity theory with the aid of positive feedback loops allows us to theorize social change. Such social change can spring from within social groups and societies in the same way

that social movements can start from small and unorganized deviations from the norm and create long lasting effects. In fact, complexity theory is in a unique position to theorize how small changes when a system is far from equilibrium can have substantial effects. In the next chapter, I argue that social movements put well-integrated systems in such a critical point at which change is possible.

Chapter Five: Complexity Theory, Social Movements, and The Imperative of Participation

1. Introduction

The notions of networks, complexity, emergence, and self-organization are new but important concepts for theorizing social change. In fact, many⁷³ scholars acknowledge the “obvious potential presented by theories of complexity, emergence, and self-organization” (Escobar, 2017, p. 334). These concepts represent the key characteristics of complex dynamical systems theory, which I call complexity theory for short. The fundamental question of complexity theory is “How does order emerge out of dynamic unfolding of materiality through processes that cannot be comprehended by simply understanding the properties of the elements making up the entity of system in question?” (p.334). Complexity theory is particularly valuable for understanding change through alternative forms of intervention like social movements. Escobar defines complexity theory as “the science of emergent forms, how these acquire coherence and consistency, the dance between order and disorder” (p. 334).

In this chapter, I use complexity theory to make a rather controversial claim: that participating in social movements is a moral imperative. I argue that participating in social movements is the proper moral response to oppression. In what follows, I first show that the traditional approaches to explaining oppression and social progress are unhelpful and that their emphasis on equilibrium states in social theorizing leads to moral paralysis. As an example of such a paralysis, I use Manne’s systems approach to misogyny and patriarchy. I show that her approach leads to a moral dilemma when it comes to resisting oppression and fighting for social

⁷³ Also see Walby (2007).

change. I also argue that the underlying assumptions behind Manne's system's approach about the importance of equilibrium states makes resisting oppression seem morally irresponsible while she agrees that resistance is a moral imperative.

Second, I generalize the scope of this dilemma to any theory of oppression and inequality that dismisses the possibility for change by overemphasizing the role of stabilizing mechanisms and equilibrium states. Third, I argue that a paradigm shift in our theory of explanation towards complexity theory can (1) resolve the dilemma, (2) explain the role of social movements in social change, and (3) show that in response to the harms of oppression, participating in a social movement is the only morally plausible options.

2. Theorizing Social Change

Talk of systems is very common in the theorizing of social inequalities and different forms of oppression.⁷⁴ In fact, the systems approach to explanation is particularly useful when we ask why oppression persists despite individuals' active resistance. This approach to explanation has important similarities with the structural functional approach. Not only does it rely on similar tools like functional decomposition, but it is often understood to be a powerful extension for the structural functional framework in explaining control and resistance to change. Sally Haslanger's account of structural explanation is a good example of such a connection between the structural and systems approaches to explanation. Haslanger (2015) defines systems as a collection of components with certain stable relations and behaviors. In her account, structures are just the abstract form of such systems.

Predictably, the systems approach to explanation and structural functionalism share some of their most important problems. For instance, as I mentioned in Chapter 3, these explanatory

⁷⁴ For example, see Young (1988), Combahee River Collective (1986), Crenshaw (1989), and Cudd (2005, 2006).

frameworks assume minimally interactive and enclosed systems that only involve one set of social relations and that suggest a “nested hierarchy.”⁷⁵ However, in the presence of such hierarchy, reduction becomes the norm. For instance, in theorizing social oppressions from a Marxist lens, often all non-class social relations become theoretically subordinated to class relations.⁷⁶ Moreover, as intersectional feminists point out, such a nested hierarchy and its tendency for reduction undermine the simultaneous and equally significant effect of various inequalities.⁷⁷ In previous chapters, I have touched on the descriptive and normative problems of reduction and the decomposability assumption which are common among the traditional approaches to explanation, including the systems approach and structural functionalism. My focus here, however, is another common problem of traditional frameworks to explanation: their inability to explain social change.

The systems theory in its original form is inapt for explaining social change because of its presumption of a tendency toward equilibrium and its emphasis on negative feedback loops.⁷⁸ However, later approaches to systems—such as complexity theory, the focus of this chapter—include and emphasize positive as well as negative feedback to avoid this problem (Walby, 2007). The combination of positive/reinforcing and negative/stabilizing feedback loops allows us to understand and theorize change and what it takes to have a stable system that exists far from equilibrium.

Negative feedback is important for social theorizing. The stabilizing feedback loops make social inequalities persistent. Such stabilizing feedback loops can explain why changing the

⁷⁵ See for example Walby (2007)

⁷⁶ See discussions about dual systems theory Nancy Fraser (1985) and Iris Young (1997).

⁷⁷ For similar discussions see Walby (2007) and Crenshaw (1989).

⁷⁸ For a similar argument see Sewell (1992) and Propora (1989).

social order is so difficult and why society and its individual members are resistance to change. The first reason is because the interrelated web of feedback loops makes it costly for individuals to change. In other words, everyone might benefit in one way or another from maintaining the social order since solving one problem can lead to disturbance of other systems or orders upon which the individual's survival depends. The second reason is because the existence of feedback loops make backlash in response to effective change likely.

Stabilizing feedback loops make social systems in general, and oppressive systems in particular, resistant to change. For instance, relying on a systems account of explanation, Manne (2017) defines misogyny as a system that stabilizes the patriarchal social order and domination over women. She argues that “we should think of misogyny as serving to uphold patriarchal order, understood as one strand among various similar systems of domination” (p.13). Thus, there are elements of the “misogynistic environment” that maintain patriarchy by counteracting individuals' attempts to change. Manne argues that maintaining such order happens “by visiting hostile or adverse social consequences on a certain (more or less circumscribed) class of girls or women to enforce and police social norms that are gendered either in theory (i.e., content) or in practice (i.e., norm enforcement mechanisms)” (2017, p. 13).

The maldistribution of penalties and rewards explains why women also contribute to the perpetuation of patriarchal social hierarchy. Women are prone to guilt and shame when they violate norms, police themselves and other women's bodies and behavior, distance themselves from “bad” women who do not abide by patriarchal norms, and try to excel at the standards created by the patriarchal social order (Manne, 2017, pp. 192, 256, 263-266, 19). In sum, the feedback loops that punish women for violation of patriarchal norms give women a good rationale and adaptive reasons to remain in their undesirable position. Thus, the patriarchal and

oppressive system is resistant to change because of the feedback mechanisms that correct deviation from expected behavior.

In addition to interpersonal causes, there are collective mechanisms that make change difficult. In fact, disturbing controlling systems or systems with stabilizing feedback loops can lead to backlash. In the most mechanical sense, backlash happens when there is a gap between different parts of the system. For instance, in a rolling mill or printing press, the driving member (motor) of the system is not directly connected to the driven member (load). Thus, the load can sometimes fail to be in exactly the right place at the right time. Such failure happens when there is a disturbance in the load and, in response, the motor takes corrective action in the opposite direction to bring the load back to its proper place. When the corrective action is successful, the system is back to its stable state. When unsuccessful, however, the corrective action can cause damage to the system. Thus, the way to keep the system well-functioning and efficient is to avoid backlash. In social explanation, a similar idea underlies the social response to effective or widespread change. If society is a system with interacting parts, then unmet expectations can cause disturbance to the system. Thus, backlash in social context is a strong “corrective” action in the opposite direction of the change responsible for unmet expectations.

In her book *Backlash: The Undeclared War against American Women*, Susan Faludi (1991) defines backlash as a politically conservative reaction to progressive social change. Of course, judging a series of social events as examples of backlash has both descriptive and normative elements and needs to take into account concepts such as “equality, oppression, and social progress” (Superson & Cudd, 2002, p. 3). But, regardless of our criteria for the correct use of the term “backlash,” in the context of social change, backlash has distinctive qualities that reoccur in some paradigmatic cases. For example, backlash exhibits a reactionary quality in eras of

widespread social change, for instance in the violent treatment of Blacks in the Jim Crow South following Reconstruction (Superson & Cudd, 2002).

Another distinctive quality of backlash has to do with its strong reversal of progress. For instance, the Taliban movement in Afghanistan increased restrictions on women by eliminating their ability to work, restricting their freedom of movement and speech, and controlling their ability to influence public opinion. Finally, backlash often involves widespread abuse of power by a group of actors. For instance, in the 1980s and 90s, following the progress of women's movements and the resulting increase in female labor force participation, there was widespread increase in violence against women by male strangers and known others (Xie, Heimer, & Lauritsen, 2012).

In sum, social systems involve negative feedback loops because they include mechanisms that maintain their stability. These mechanisms can make a system resistant to change by counteracting heterogeneity or correcting any deviation from the norm. The high possibility of backlash also increases the cost of intervention. Therefore, we want our explanatory framework to account for stabilizing feedback loops that create and maintain equilibrium states. However, in addition to explaining equilibrium, we need positive feedback to explain how small deviations from the norm can lead to system level change.

Reinforcing (positive) feedback loops make endogenous change possible. Take for instance Rosa Parks' refusal to obey racist norms or Alicia Garza's expression of frustration by tweeting #BlackLivesMatter. Parks endured sanctions and punishment for her action. But she also gained recognition for a problem that was salient to her. In fact, her action launched a series of reinforcing events that lead to the Civil Rights movement and addressed many problems and inequalities. However, such a chain of events would not have happened if Parks had stood her

ground in isolation. Rosa Parks was embedded in a tight-knit and well-connected network of individuals that amplified the consequences of her resistance. In fact, she was a seasoned community leader and connected to various Civil Rights activists and labor leaders (Polletta, 2002).

A proper framework for explaining social change must show how meaningful change is possible despite the existence of negative and stabilizing feedback loops. In other words, a strong explanatory framework considers two kinds of mechanisms: ones that make systems stable and ones that allow systems to change. Together these two mechanisms can create adaptive systems. As Escobar argues, the complexity framework is a particularly apt framework for not only explaining social change but also guiding our moral response to social problems.

The important features of the complexity framework in explaining social change are the positive feedback loops, heterogeneity, and the dynamic network of social connections. Positive feedback loops are necessary to explain change from within. The growth and spread of social movements, which are arguably the engine of many important social changes, resemble the structure of positive and reinforcing feedback loops. For instance, for protesters, “Any spectacular victory of the rebellious have-nots in any one place would activate their consciousness and their rebellion in other places” (Marcuse, 1966, p. 67). At this stage “what is happening is the formation of still relatively small and weakly organized (often disorganized) groups which, by virtue of their consciousness and their needs, function as potential catalysts of rebellion within the majorities to which, by their class origin, they belong” (Marcuse, 1972, p. 50). In these protests, through a reinforcing feedback mechanism, the victory of a small and unorganized group activates larger and larger protests which, after some time, turn into well-organized and massive protests that can demand and bring about social change. For instance,

“Slave revolts spread throughout the Caribbean in the early nineteenth century...revolts of industrial workers expanded throughout Europe and North America in the late nineteenth and early twentieth century...and guerilla and anticolonial struggles blossomed across Asia, Africa, Latin America in the mid-twentieth century” (Hardt & Negri, 2005, p. 213).

Heterogeneity is another necessary concept for explaining endogenous change. For instance, Haslanger (2017) and others⁷⁹ argue that new experiments in living lead to heterogeneity in the cultural hegemony by creating subcultures. These subcultures and their corresponding network of individuals create a base for demanding broad structural change in society (2017). The new experiments in living, however, can only lead to social change when they can escape mechanisms that counteract deviation. Haslanger (2017) argues that ideology or cultural hegemonies can filter our experiences. Escaping mechanisms that counteract new experiments in living or social change also requires reinforcement or intensification through subcultures or networks of somewhat like-minded individuals who give meaning to those experiences. These reinforcing networks can grow and ultimately lead to broad and multilevel social change.

Positive feedback and heterogeneity are salient features of any endogenous change. However, neither of these features would be relevant if individuals were acting in isolation and independently of one another. Therefore, attention to the dynamics network of social relations in terms of its connectivity level or to the distribution of its relations and interactions is crucial. Not only can we not explain a wide range of social phenomena without attention to such a network,

⁷⁹ For example, Felski (1989) and Fraser (1990) argue that counter publics are necessary for finding the new ways of living together. Also, Anderson (1991, 2014), Fine (1998), and Pappas (2016) argue that the experiments in living constitute an important element for social change.

but our moral evaluation of such phenomena will also be misguided. In the following section, I provide an example of such misguided evaluation.

3. Systems Theory, Misogyny, and a Moral Dilemma

A liberatory analysis of oppression should not lead to moral paralysis and stagnation. However, the systems theory approach and its focus on equilibrium states not only makes it impossible to theorize change, but also it leads to moral paralysis. Take for instance Manne's (2018) systems approach to misogyny according to which resisting misogyny and not resisting it are both morally problematic. According to her, although resisting a patriarchal social order is a moral imperative, there are strong self- and other-oriented moral reasons to avoid resistance. In fact, Manne argues that resisting through moral claim-making is like feeding a fire and concludes that we need to "give up" (2018, p. 300).

Manne is right to argue that resisting oppressive systems is costly and that sometimes the burden of such resistance falls on the shoulder of the most vulnerable. According to Manne, given the logic of misogyny, a misogynistic backlash, in the face of attempts to achieve gender equality, is foreseeable and even inevitable. In fact, understanding misogyny as a system composed of stabilizing feedback loops implies that any success in achieving gender equality will be followed by an inevitable recoil. She argues that even in ostensibly progressive regimes or when feminist progress is rapid and impressive, we see a rise in misogynistic backlash.⁸⁰

Manne identifies various mechanisms that make backlash likely. For example, latent or dormant misogyny within a culture "may manifest itself when women's capabilities become

⁸⁰Manne argues that "This helps to explain why misogyny is both prevalent in ostensibly oppressive regimes and why we have also been seeing a good deal of it coming to the surface in the United States lately. Feminist progress has been rapid and impressive in many ways. But this has led to resentment, anxiety, and misogynistic backlash. We see this coming out under the mantle of moralism, as well as under the cover of anonymity, as in Internet comments sections" (p. 101).

more salient and hence demoralizing or threatening” (2018, p. 101). This can happen because of a sense of competition that “will often result in the hitherto dominant being surpassed by those they tacitly expected to be in social positions beneath them, and [so] you have a recipe for resentment and a sense of ‘aggrieved entitlement’” (Manne, 2018, p. 156). Violating expectations is another trigger for backlash. For instance, Manne argues that even women calling out misogynistic behavior can be a violation of patriarchal norms since women are supposed to be “moral listeners” (p. 289).

In addition to explaining the resistance of social oppression, Manne’s systemic analysis highlights the cost of change. Unfortunately, Manne remains mostly silent about interacting social oppressions. However, her focus on the cost for change and deviation from oppressive norms is in harmony with the work of many others who highlight ways in which progress for a group with legitimate moral concerns can be a regressive burden for their more vulnerable members.⁸¹ Moreover, dismissing such burdens in our analysis of oppression can create incentives for abuse. For instance, a large body of scholarship on Muslim women argues that imperialism coopts feminist sentiments to advance its dominance over Muslims by portraying these women as oppressed by a barbaric and medieval religion.⁸² Such cooptation has been used to support different forms of intervention “ranging from war to the marginalization of Muslim population in the West” (Khader, 2016). And it has led to the false conclusion that “freedom” from such an “oppressive religion” is worth the exposure to war or further marginalization for these women and their communities.

⁸¹ For example, see Ortega (2006).

⁸² See for example Hirschkind and Mahmood (2002), Mahmood (2005), Alexander (2006), Razakh (2008), Gurel (2009), Maira (2009), and Volpp (2011).

Despite the advantages of a systemic approach to oppression, this explanatory framework has an intolerable problem. Such an approach often implies that meaningful, sustainable, and progressive change from within is impossible. It implies that change requires either an external intervention or a revolution. Manne's systemic approach to misogyny and patriarchy is not immune to this problem either. In fact, her analysis of patriarchal oppression leads to a moral dilemma⁸³ and moral paralysis.

On the one hand, "misogyny ought to be opposed,"⁸⁴ and individuals have reasons and obligations to resist the patriarchal social order. There are a variety of arguments for the obligation to resist oppression. For example, Hay (2013) argues that "people have an obligation to resist their own oppression and that this obligation is rooted in an obligation to protect their rational nature" (2013, p. 118). Another argument in support of such obligation relies on the adverse effect of oppression on the individual's well-being and the obligation to resist such an effect for oneself or for others (Silvermint, 2013). In sum, there are individuals or groups that might not have any other moral or practical choice other than resistance. On the other hand, fighting the system can lead to more violent or harsher reactions for individuals and can disproportionately affect vulnerable populations. The reactions can also have a regressive effect for everyone and can undo progress. Therefore, neither appeasing misogynists to avoid backlash nor fighting back seems to be a morally unproblematic option.

Manne explicitly argues that "trying to fight misogyny primarily using juridical moral notions is a bit like trying to fight fire with oxygen" (2018, p. 28). Even if we manage to control the situation at a small scale, "when we try to scale up the strategy, it is liable to backfire" (p. 28). Our attempts to address the moral wrong doings are futile because we are feeding into the

⁸³ For a detailed account of such dilemma for Manne's approach see Lopes (2018).

⁸⁴ Kate Manne, *Down Girl: The Logic of Misogyny* (New York: Oxford University Press, 2018), p. 28.

fire by even trying to call it out or to stop it. That is why Manne suggests that maybe the solution is to just “give up” (p. 300). Manne explicitly argues that resisting only through moral claim making is fruitless. However, it is plausible to say that considering her systemic account of misogyny, any kind of resistance can face the same moral dilemma.

Despite what the systems theory approach to oppression predicts, there are ways out of an oppressive and dysfunctional equilibrium. In fact, the history of social movements shows that persistent moral claim making is an important way to achieve broad structural change. For instance, the Civil Rights Movement faced a violent and direct form of backlash. Given the equilibrium-based conception of oppressive systems, the backlash should only have functioned to dampen the momentum of the movement and undo the progress it had made. However, many scholars pointed out that “As Martin Luther King well knew, the image of Bull Connor’s police force using fire hoses and dogs against civil rights marchers in Birmingham was a major turning point in enlisting the sympathy of northern liberals for the civil right fighters” (Mansbridge & Shames, 2008, p. 630). In other words, the force exerted in a racist or misogynistic backlash can be and has been used to make subsequent growth and progress possible. More subtle strategies have also been used to turn the momentum that a backlash creates toward a movement’s goals. For example, the leaders of the women’s suffrage movement responded to the claim with backlash-like quality that “suffrage would erase the differences between women and men” by suggesting that women’s “superior moral nature” makes them the best candidate for “municipal housekeeping.” Thus, they called women to “clean the public house” (Mansbridge & Shames, 2008; Also see Kraditor, 1965).

Enlisting both the sympathy of northern liberals and the solidarity of the general public that buys into women’s superior moral nature serve a function in changing the structure of social

relations. These actions lead to the creation of weak but influential relations of empathy and trust that changes the fabric of society and destabilizes the unjust social order. The new networks of trust and empathy create further opportunity spaces for cooperation and communication. However, there is no place in the systems approach to explanation either for the role of such weak ties or for their effect on reinforcing and amplifying moral demands. I explain these points in detail shortly.

In sum, the problem with the systems approach to oppression in general, and with Manne's account of misogyny, is that if it were true, progress would never be possible. Manne's account of misogyny relies on a system's framework of explanation that is neither complex nor quite dynamic in the sense that it can capture the stochasticity and non-linearity of social systems. Moreover, without complexity, or without considering the interrelated network of social ties and social interactions, her account fails to capture the possibility of novel system-level properties, or emergence, and of self-organization. Manne's account describes society in a patriarchal equilibrium in which not only do individuals not have incentives to resist but they face punishment and backlash if they try.

4. The Alternative Approach: Complexity Theory

The moral dilemma inherent to resisting oppression is less of an issue if there are ways to effectively resist and support social progress without "sacrificing anything of comparable moral importance" (Singer, 1972, p. 231). However, resolving this dilemma requires that our explanatory frameworks for complexity theory undergo a paradigm shift. Such a shift breaks the false dichotomy between individuals and collectives or between individuals and social structures and allows us to see the interaction between the two. It can distinguish Rosa Parks' resistance embedded in a network of social actors from uncoordinated and independent actors who face

punishment without any progress. This distinction provides an alternative form of resistance that leads to progressive change without sacrificing anything of comparable moral importance.

Thereby, this kind of paradigm shift can resolve the moral dilemma.

Complexity theory can also explain why among all possible methods of intervention, social movements are at least sometimes the most successful. In addition to explaining channels of amplification and dissemination of information, social movements can explain individuals' contributions to change. In particular, complexity theory explains why a proper moral response to some social problems can be simply joining a movement. Movements create novel system-level properties like subcultures in which new norms emerge. As I discussed in chapter four, the key to the emergence of such alternative cultures and norms is changing the network of social relations. Such a change creates new possibility spaces in which individuals have rational reasons to deviate from mainstream norms with minimal repercussions.

The key contribution of social movements is that they transform the network of social interaction. Such a transformation provides a different set of incentives that can make formerly costly deviations from the mainstream norms beneficial. Moreover, through self-organization, movements can find complicated solutions to complicated problems. Unlike systems theory and structural explanation, complexity theory allows us to theorize informal interactions and weak and contingent ties.

5. Resolving the Dilemma

As I argued before in this chapter, Rosa Parks' successful resistance to oppression would have led to different outcomes if she had not been embedded in a well-integrated network of activists and allies. Moreover, the possibility of successful resistance needs to bear at least some importance in evaluating individuals' moral obligations. In what follows, I argue that neither

resisting by independent and uncoordinated individual action, nor expecting only top-down interventions to resolve social inequalities, is a morally viable option. I conclude that resisting oppression is only possible and morally permissible when conducted in coordination with others and that the only moral prescription to make for individuals is for them to join a movement.

Similar to Manne's analysis of patriarchy, Anderson's "economic" framework of culture⁸⁵, centers an equilibrium state to explain different aspects of durable and categorical inequalities (Anderson E. , 2010). In Anderson's account, culture is "the equilibrium of individual strategic responses to each other's conduct, within the constraints of their resources and opportunities" (2010, p. 78). According to this understanding of culture, individuals have rational reasons to remain within the scope of the equilibrium and avoid any deviation. In other words, such equilibrium states are like attractors in dynamical systems toward which a social system tends to evolve. For a variety of starting conditions and when the system is close enough to an attractor, no relatively small disturbance can cause the system to remain far from the equilibrium.

Moving away from the equilibrium states through independent and uncoordinated individual actions is theoretically and practically impossible. In fact, one way to interpret the cultural equilibrium or attractors as a set of norms, laws, conventions, and practices through which (1) coordination and collaboration are possible, and (2) everyone is better off by obeying these norms rather than violating them. These equilibrium states and the conventions that make them possible often organically emerge out of many interactions among individuals with different resources and opportunities (Vanderschraaf, 2019). The mechanisms that keep social systems close to their equilibrium states involve various forms of negative feedback loops. Thus,

⁸⁵ I discussed this approach in more detail in Chapter 1.

uncoordinated and independent deviation from the conventions and norms clearly and only leads to sanctions on the individuals, and virtually no positive outcome can be expected.⁸⁶

The influence of feedback loops at the social level in terms of backlash can make top-down interventions risky as well. As I discussed in chapter two, relying on top-down intervention to change problematic norms and practices through governmental regulation or policy change can be futile or even harmful. The problem is that when individuals have independent reasons to stick to the same norms of cooperation, they resist change. With enough people resisting the change we have collective resentment and backlash. Moreover, the information necessary to create conventions that optimally addresses the needs of everyone is often radically disseminated among the actors. Thus, it is likely that no central force can analyze such radically disseminated information that involves the lived experience of individuals from all walks of life. Thus, for many chronic and complex problems, it is likely to result in with bad or ineffective policies. Moreover, the interdependency of conventions and norms makes it even more complicated to figure out the right intervention with minimal disruptions.

Thinking of culture as an equilibrium state leads to a moral dilemma similar to Manne's account of misogyny: resisting dysfunctional norms can be costly and even harmful, while not resisting is also morally problematic. The solution to this dilemma relies on a distinction between effective and ineffective resistance. At least for some problems, especially ones that are interrelated to many other problems and norms that perpetuate them, neither uncoordinated individual action nor top-down interventions (on their own) are effective forms of resistance. However, the obligation to resist oppression assumes that the resistance has some positive effect.

⁸⁶ Some might argue that an individual's sense of integrity or the psychological harms that one goes through to endure oppression is enough to resist. However, for any given form of marginalization there will be at least some norms from which violation is sufficiently costly that keeping a sense of integrity or protection from psychological harms will not suffice to justify unsuccessful resistance. For examples see Medina (2013).

Thus, without such an effect, there is no obligation and no dilemma. If there are alternative forms of resistance that can somehow take society far from equilibrium states without sacrificing anything of comparable moral importance, then an obligation to resist will be meaningful. In the next section, I argue that there is such an alternative. I show that individual resistance when in coordination with others has different outcomes and therefore can be morally required.

6. Coordination and the Structure of Social Interactions

The structure of social networks at least partially determines the equilibrium states in which we find ourselves. They can explain the emergence of dysfunctional cultures and equilibrium states that are hard to dismantle. Thus, examining the network of social interactions can provide insight for progressive and sustainable social change that can mediate the emergent inequalities. For example, complexity theory and the potential for self-organization in well integrated systems imply that networks of interaction and cooperation are not evenly distributed. They are patchy and involve parts with higher and lower density. Sometimes these patches of lower and higher connectivity trace social categories and explain the relevant inequalities between groups. In other words, the patchiness is due to the network of relations that members of a group create to maintain their domination over scarce or important resources.

Oppression is a form of group inequality (Cudd, 2005). In other words, individuals are oppressed only in virtue of their group memberships. One way to understand groups is in terms of modes of socializing that create clusters of individuals with different degrees of connectivity. Such groups are heterogenous and very fluid. However, there are chronic, complex, and stable social inequalities around the world that trace specific kinds of group identities like race, gender, class, ethnicity, religion, caste, nationality, etc. Thus, we have clusters of social relations that become more stable over time and causally relevant to the explanation of different forms of “durable inequalities” (Tilly C. , 1998). Such inequalities persist because individuals use their

networks of social relations to preserve their advantages across generations. Practices like “monopolistic control of higher education, class segregated housing, norms against intermarriage, and exclusionary rules of etiquette” efficiently preserve advantages for a few (Anderson E. , 2010, p. 8). But the efficiency of these practices is dependent on cooperation and mutual expectations of the members of a network to ensure that others cannot use their resources.

As Max Weber argues, members of a group secure their dominance over important resources like land, education, military power, etc. by closing their ranks to outsiders (Weber, 1978). Thus, although members of the dominant group allow a relatively free circulation of resources within their network, they heavily regulate transactions with outgroup members. In other words, the members of the group coordinate their actions to create and enforce norms and practices that facilitate access for in-group and limit the ingress for the outgroup members. Similarly, Tilly argues that the members of dominant groups create practices to “hoard opportunities” and exploit the out-groups by depriving them from the benefits of their resources (Tilly, 1998). The “old boys’ networks” that limit access to business deals and executive positions for anyone outside of their social circles is an example of such active cooperation to maintain power and hoard opportunities (Anderson, 2010). The very low compensation and hard work of the undocumented immigrants in the United States is an example of such exploitation (Bales, Fletcher, & Stover, 2004).

Once durable inequalities, especially ones that trace social identities, get established in one domain, they spread through new domains and turn into a pervasive problem. Tilly explains such a spread through the mechanisms of *emulation* and *adaptation*. Different organizations and networks *emulate* the well-established inequalities and exclusionary practices mainly because they are beneficial. When other organizations successfully copy the existing models of domination,

the exclusionary practices spread even in the absence of any hostile attitude towards the dominated group. For instance, capitalism copies the division of labor and exploitation of women of earlier economic systems. And the work force assigns “inferior” jobs to women that require care-taking with low compensation. Moreover, we *adapt* to such unequal positions by creating habits that allow us to interact and cooperate with others. Then, we carry these habits to new domains and recreate the same inequalities.

Neither preserving domination nor the spread of durable inequalities through different domains would be possible without fragmentation in the networks of social relations. In a sense, the exclusion or inclusion of individuals in parts of the network with clusters that involve relations of trust, cooperation, communication, etc. create different social groups and define different identities. The exclusionary practices that allow members of one group to hoard opportunities deprive others of resources and make them vulnerable to exploitation. Thus, an effective way to address durable inequalities is by transforming the structure of social relations. Such a transformation can be boosted by top-down interventions, like busing students so as to integrate schools or attempt to integrate neighborhoods. But sustainable progress cannot be achieved without inclusion of individuals in resource-rich networks of trust and cooperation.

7. Social Movements

Admittedly changing social and moral norms is very difficult. But as history testifies, this kind of change is clearly possible. In fact, Anderson is among the most well-known theorizers of social moral progress even though her economic approach to culture cannot capture change (Anderson E. , 2014). Anderson famously argues that a particular mode of contentious politics, namely social movements, can lead to progressive moral transformation. In her account, the importance of social movements in social change stems from the movements ability to correct a principal source of moral bias, namely “the tendency of the powerful to shape and uphold moral

norms that confuse the right with what the powerful desires for themselves” (2014, p. 15). In what follows, I briefly explain Anderson’s defense of social movements and raise four questions that this defense fails to address.

According to Anderson, social movements are particularly apt to be vehicles of moral transformation because they can undertake three important tasks: (1) allowing people to inform the powerful “how the needs and interest of the less powerful are ill-served by reigning norms,” (2) allowing people to demonstrate their moral worth and commitment, and thereby bolstering the moral authority of their claim-making, and (3) holding the powerful accountable. Anderson also adds that social movements provide alternatives to the norms they challenge. However, the ultimate test of moral progress and the success of social movements is the lived experience of “those living under the new norms that an effective social movement establishes” (2014, p. 15).

For Anderson, moral norms resemble various social norms because they facilitate cooperation and coordination and because they are “largely sustained through shared expectations of conditional conformity, backed up by expectations of sanctions” (2014, p. 4).⁸⁷ These norms can contribute to the normalization and rationalization of different aspects of oppression. Anderson argues that social movements are necessary for making moral progress because they can create alternative norms and disvalue the old ones. Movements engage more people who can express their opposition and motivation, so the support and strength of old norms

⁸⁷She further explains the nature of social norms as follows: “Humans are social beings, who cannot survive or achieve their ends without assistance from, and cooperation with, others. The need for assistance, cooperation, and coordination is so constant that it cannot be secured by *ad hoc* arrangements. People institute rules of conduct—embodied in conventions, customs, norms, and laws—to secure regular assistance, cooperation, and coordination from each other. Conventions, customs, and non-moral norms are sustained by mutual expectations of conditional conformity—shared understandings of most people’s disposition to conform to the rules on condition that others do, too. People may also apply sanctions to nonconformists, and some of the motivation to comply may be to avoid expected sanctions” (Anderson E. , 2014, p. 4).

decline. Thus, movements take away the power of old norms in claim-making and impose a moral cost on those who insist on upholding the challenged norms.

Anderson is right that social movements have been and can be important engines for social change. However, if, all things considered, everyone has a rational reason to abide by unjust practices of oppression and domination, her account fails to show how individuals join a movement and why they should. In other words, looking at social movements as an aggregate-level phenomenon explains the positive role they play in progressive social change. But at the individual level, there seems to be no reason for why an individual should support a movement in the first place. Moreover, the unpredictable nature of collective action implies that one might join a movement that just goads society into another dysfunctional equilibrium.

In sum, Anderson's argument for the role of social movements for social progress fails to address four concerns. The first concern concerns sustainability. In other words, Anderson's argument does not explain how progress is not followed by regress. The emergence of social and moral norms is dependent on many material and interdependent social factors. Therefore, if everything remains the same, then the dysfunctional norms will be recreated over and over again but just in new forms and ways. Thus, moral progress is doomed to regress if the causal mechanisms that maintain inequality are untouched. Second, by definition, social systems cannot last far from equilibrium states. In fact, in Anderson's economic approach to culture, the equilibrium states maximize utility for everyone involved. Thus, there is no incentive to move away from them especially when there are reasons to believe that deviations will be counteracted. Third, Anderson's argument remains silent about how movements create better alternatives and avoid inferior ones. Fourth, she does not explain whether individuals have any

moral responsibility towards movements and for moral progress. In the following sections, I rely on a complexity framework to address all these concerns.

7.1. First Concern: sustainability.

The first concern about Anderson's argument involves how progress is sustainable if all other aspects of the society remain the same. Let's assume that a movement successfully corrects the principal source of moral bias while leaving everything else that leads to power and authority untouched. It is hard to see why individuals in the position of power would not just find alternative moral norms that serve a similar function and that confuse the right. Addressing this concern requires moving away from the traditional frameworks and toward a complexity approach. Such a move allows us to see that movements in fact alter an important feature of the society, something that disrupts the mechanisms through which power is maintained: networks of interaction. These networks play an important role in the evolution of movements, and movements alter the network of social relations. The former effect allows movement to amplify and engage a wider portion of the society. The latter effect allows movements to fill the structural holes and disrupt the networks of social relations through which the powerful maintain their dominance and exclude others from access to resources.

Some scholars view social movements as a particular form of social organization that emerges out of repeated and patterned interactions between multiple actors (Mische 2008, Diani 2015). This approach to social movements avoids treating collective phenomena as aggregates of the properties of their individual compositions and allows for a relational and interactive view of collective action processes (Crossley, 2011). The strength of this approach to social movements is in its ability to trace the ways in which social movements transform social networks and create

sustainable social change. Instead of focusing on well-established social roles⁸⁸ in assigning responsibility for social change, this approach to movements and relations highlights the role of contingent interactions as well as well-established and institutionalized social relations. In fact, in the context of social change, focusing on the dynamic nature of social relations becomes very important. The reason is that one of the most important effects of social movements is their ability to “destabilize a given situation and contribute to reorganization of positions and relations within a field” (Diani & Mische, 2015, p. 3). Social movements facilitate social change by creating a higher likelihood for contingent interactions. In other words, social movements change the level of integration in the society.

By participating in a movement, individuals provide the movement an access to their extended social network. The importance of such access is particularly evident in the process of recruitment and coalition building that builds on pre-existing networks. Movements also change the network of social relations for their participants. For instance, joining movements allows individuals to come into contact with previously unknown people, ideas, tactics, and networks. In fact, social movements are particularly effective at increasing the number of weak ties that helps to “bridge structural and cultural holes” (Diani & Mische, 2015, p. 13). Such restructuring of social relations provides opportunities for coalition building across social groups and networks that were not in contact before (McCammon and van Dyke 2010). Social movements are also effective in creating strong ties that persist over a long time and can be highly emotionally charged. McAdam (1988) documents various forms of such strong ties that emerge out of shared struggles, such as those that bound participants in Freedom Summer.

⁸⁸ For a similar argument see Haslanger (2017) and Zheng (2018).

The networks of social relations change even within a course of a movement. For instance, “During the early stages of an emerging protest cycle, as a protest begins to shift in scale and generates an exuberant intermingling of people, groups, and slogans the potential for expansion of weak ties is probably at its height” (Diani & Mische, 2015, p. 14). At this stage strong ties are not likely, but nevertheless, “they may forge new connections and the beginnings of shared stories, which might become activated or expanded in future encounters” (Diani & Mische, 2015, p. 14). This is often known as the “amplification stage” because “weak ties and loose chains of connections span structural holes” and we may be witnessing a growth of “coalitional” patterns, in which “multiple collaborations develop, yet on what is still largely an ad hoc, issue-related basis” (Diani & Mische, 2015, p. 14).

In later stages of the movement, stronger ties are formed that cross the “structural holes” and break down the categorical cultural boundaries. These ties can generate new and alternative networks of cooperation and communication between individuals and groups. This “consolidation” stage of the movement creates cross-network negotiation and coordination. In other words, the change in the structure of social network in the society disrupts the preexisting norms of collaboration and coordination. Formerly excluded individuals can gain access to various resources through their newly made connections or through the connections that people in their networks have formed with others. Such connections change the fabric of the society and provide personal and structural incentives for individuals to endorse alternative modes of interaction and cooperation. In sum, cultural change follows the change in social networks, not vice versa. A progress that follows such a change in networks will be sustainable.

7.2. Second Concern: moving away from an equilibrium.

The second concern is whether moving away from an equilibrium is possible in the first place. In the previous section, I argued that social movements alter the networks of social relations and change individuals' connectivity level. However, higher connectivity can put a very stable system at a critical point in which change is possible. In other words, social movements can put oppressive systems at the edge of chaos, the state between order and disorder with a high level of complexity. Oppressive systems at this state can move from one local equilibrium to another without damaging the fabric of society or leading to backlash. In fact, such a move happens in many regards on regular basis with technological and other forms of change. In other words, social systems at this state are less resistant to change and are more adaptive.

Ecosystems, societies, and economic systems are examples of systems that can evolve when they exist at the edge of chaos. It is true that nothing novel can emerge from stable social systems close to an equilibrium state. In fact, such systems are very resistant to change. It is also not possible to make progress in completely chaotic systems or societies that are filled with riots, rage, and chaos as such systems are too formless to preserve positive changes. Thus, a particular balance between the destabilizing and accountability mechanisms is necessary for the emergence of new social and moral norms. Such new norms can guide us to a new equilibrium state.

Progress happens somewhere in the boundary between complete order and complete chaos (Henry, 1991-2006, p. 246). Thus, a complete understanding of social phenomena that incorporates social change requires a framework of explanation that is compatible with the features of a well-integrated system at the edge of chaos. As mentioned in Chapter 3, "The edge of chaos is where new ideas and innovative genotypes are forever nibbling away at the edge of the status quo, and where most entrenched old guard will eventually be overthrown" (Waldrop,

1992, p. 12). It is also where “centuries of slavery and segregation suddenly give way to the civil rights movement of the 1950s and 1960s; where seventy years of Soviet communism suddenly give way to political turmoil and ferment; where eons of evolutionary stability suddenly give way to wholesale species of transformation. The edge is the constantly shifting battle zone between stagnation and anarchy, the one place where complex systems can be spontaneous, adaptive and alive” (Waldrop, 1992, p. 12). In sum, a proper method for explaining social change should at least be open to the possibility of there being well-integrated systems at the edge of chaos.

The key to understanding how systems can move away from equilibrium states is the level of connectivity. A paradigm example of a complex and dynamic systems is Stuart Kaufman’s (1991) famous NK model. This model shows how a system can move away from an equilibrium state with the right level of connectivity among individuals. In Kaufman’s NK model, N elements, say individuals, contribute to the average fitness of their population. Let me assume that the fitness here is optimized when we have an equilibrium of “individual strategic response to each other’s conduct, within the constraints of their resources and opportunities” (Anderson, 2010, p. 78). In this model, K represents the number of individual connections.

In the NK model, when no one in the system is connected to anyone else, K is equal to zero. In such a system, the contribution of everyone to the overall fitness is very minimal and negligible. However, when every agent is connected to at least two or three other agents, the system becomes nearly decomposable in the sense that it is unclear which contributing component has changed the fitness of the system. In fact, the individuals’ contributions are heavily interdependent. As K grows larger, the system becomes more and more interconnected.

A fully connected system, when $N=K$ or when every component is connected to every other component, is chaotic and unpredictable. A good example of such a high level of connectivity and unpredictable outcome is a revolution and the period of chaos and terror that follows it. However, with the right proportion between N and K , Kauffman and his model show that the system can be self-organizing.⁸⁹ In other words, with the right level of connectivity the internal organization is sufficient to generate considerable order (cf. Burian and Richardson, 1990). At this level of connectivity, the system is at the edge of chaos.

At the edge of chaos, the system can move away from one equilibrium state to the other. Figure 4 represents various paths that the system can take to move from one local equilibrium to the other on the fitness landscape. However, such a landscape is not known to any of the individuals or to them as a group. So it becomes particularly difficult to determine the “right” or optimal path or direction. Some paths can lead to resistance, because of their worst outcomes for everyone or for the more powerful. The most successful social movements are the ones that can navigate such paths by bringing in the lived experience of many people from different walks of life. I explain this point in the following section.

⁸⁹ (Kauffman, 1995)

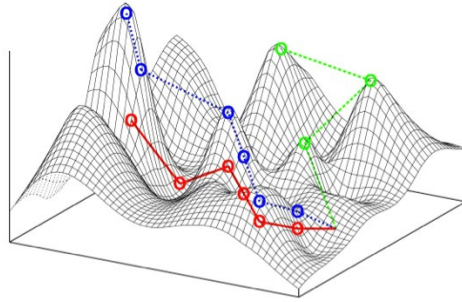


Figure 4. The fitness landscape for cultural norms and practices. The vertical axis represents the fitness, and the two horizontal axes are two variables that contribute to the fitness of the system or population. Adapted from “Visualization of two dimensions of an NK fitness landscape,” by Randy Olson, 2013, January 10.⁹⁰

7.3. Third Concern: Finding Alternatives

In addition to destabilizing dysfunctional social norms, social movements are venues for collective complex problem solving. When they are successful and lead to progress, it is often because they created a right path that leads to a better equilibrium state. However, not all movements are successful and not all their alternative equilibriums are better than the current state of affairs, all things considered. So why should one support a movement when there is such a risk for ending up in new but nevertheless dysfunctional equilibrium states. Perhaps social epistemology has a lot to teach us about the virtues of organizations that in fact get things right (Anderson E. , 2012). However, my focus here is on the structure of dynamic social networks that increase our chance to get to a better equilibrium state and improve our fitness.

Without a doubt, communication is necessary for collaboration and collective problem solving. Thus, it should come with no surprise that the structure of communication networks among actors affects the performance of systems. The problem is that higher connectivity in

⁹⁰ The link to access the original form of the graph:
https://en.wikipedia.org/wiki/Fitness_landscape#/media/File:Visualization_of_two_dimensions_of_a_NK_fitness_landscape.png.

social movements makes communication more efficient but lowers the quality of collective solutions. For instance, David Lazer and Allan Friedman (2007) show that in “dealing with complex problems, the more efficient the network at disseminating information, the better the short-run but the lower the long-run performance of the system” (p. 667). The efficiency in their model is determined by the degree of connectivity. Higher efficiency networks have a higher degree of connectivity, and a lower efficiency network has a lower number of connections between individuals. In other words, very well-connected networks can disseminate information faster, but individuals stop their search earlier when they hear about a slightly better solution.

The best structure for collective problem solving involves a combination of higher and lower efficiency networks. Such a combination in fact resembles the structure of the most successful social movements, namely grassroots, chapter based, and leaderful movements (Crutchfield, 2018). In her book, *How Change Happens: Why Some Social Movements Succeed While Others Don't*, Crutchfield discusses various successful movements in the last decades in the United States, such as Marriage Equality, Mothers Against Drunk Driving, and Tobacco Control, and shows that the success of these movements is due to their chapter based, grass roots, and leaderful organization. Computational simulation and empirical studies also support this claim (for examples see Siggelkow & Levinthal, 2003; Sunstein, 2003; Uzzi & Spiro, 2005; Kollman & Miller, 2000; and Oh, Chung, & Labianca, 2004). In fact, chapter based, grassroots movements have the most effective structure of collective complex problem solving. With democratic and inclusive ideals, such movements can bring in the lived experience of many individuals from different walks of life to find the closest best alternatives and the path to achieve them.

7.4. Fourth Concern: The Imperative of Participation

In his famous paper, "Famine, Affluence, and Morality," Peter Singer (1972) provides a simple and powerful argument that relies on an intuitively obvious fact and a fundamental moral principle. He argues that it is a fact that dying from hunger and lack of shelter is bad. And he offers the "uncontroversial" principle that if someone can prevent something bad from happening without sacrificing anything with a comparable moral value, one ought to do it. Thus, if, for example, one is passing by a shallow pond in which a child is drowning, and if the only sacrifice that one needs to make to save the child is one's shoes, then one ought to save the child. In what follows, I use a similar argument to address the fourth concern about our moral responsibility to participate in a social movement. My goal is to show that participating in a movement is something we can do to prevent something bad from happening and participating does not require sacrificing anything with comparable moral importance. I conclude that supporting some social movements is a moral imperative.

Oppression is bad. Oppression is a result of fragmentation in the network of social relations. Therefore, a fragmentation in social relations that allows members of one group to dominate another and make the dominated group vulnerable to unjust harms, such as "exploitation, marginalization, powerlessness, cultural imperialism, and violence,"⁹¹ is also bad. Social movements fill the structural holes and disrupt the networks of social relations through which the powerful maintain their dominance and exclude others from access to resources. Filling the structural holes and disrupting the networks of social relations that maintain power are not possible through other ways of intervention, such as independent individual action or top-

⁹¹ Iris Marion Young, "Five Faces of Oppression" (1988), p. 270.

down interventions.⁹² In fact, without addressing the structural fragmentations and disrupting the networks of dominance, long term progress is not possible and even where it is, it will not be sustainable.

Recall the principle that, as Singer puts it, “if it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it” (1972, p. 231). In this chapter, I showed that social movements are effective vehicles for progressive social change. Their effectiveness can undo the harms of top-down interventions, which I discussed in Chapter 3, and even make the short-term progress made by such interventions more sustainable.⁹³ Thus, it is natural to conclude that if one’s support of a movement helps its cause, and if one would not sacrifice anything of any moral importance in doing so, one ought to support the movement. Nevertheless, a few clarifications are necessary to draw this conclusion.

Social movements have the power of effectively resisting oppression and dismantling the oppressive social order by changing the network of social relations. Moreover, even small contributions to a movement can have significant effects. By supporting a movement, individuals provide access to their extensive network for cooperation, communication, and building respect and trust. Although supporting a movement can mean different things in different contexts, at the

⁹² By emphasizing the importance of coordinated individual action I do not mean to undermine the importance of policy and top-down intervention. In fact, for some problems top-down interventions are absolutely necessary. But they are not sufficient when we need coordinated change at all levels. Thus, the importance of movements should not be an excuse for governments to abstain from what they are socially and morally obligated to contribute. This importance is also definitely not an excuse to abuse the contributions of activists and organizers that make change possible either. For examples of such an abuse by a government to put the responsibility for effective intervention on activists and especially on women, see Lind (2007).

⁹³ A very famous example of the complementary effect of top-down intervention and grass roots organizing is the movement against tobacco use in the United States. For a more in dept analysis see Crutchfield (2018).

very least it requires refusing to remain neutral when a crisis is evident and connecting to others who are better positioned to figure out which course of action is necessary.

The simple act of reorienting our connections and our moral stance can transform our social networks and thereby destabilize the oppressive social order. One prominent example of such an effective change through the transformation of trust networks is the #metoo movement. MacKinnon (2019) argues that although “the legal, political, and conceptual innovations of the 1970s” were necessary for change, “it is the collective social intervention of the #MeToo movement” that transformed the culture around sexual harassment (p. 2). Empirical evidence shows individuals are more willing to report instances of sexual abuse after the #MeToo movement.⁹⁴ The victims of abuse gained trust in their network to not retaliate against their report and will stand with them in solidarity. Data also suggests that, after the movement, a higher rate of such reports has led to actual arrests (Levy & Mattsson, 2019).

The public attention that movements bring to an issue is, on its own, inadequate to explain the movement’s effectiveness. In fact, changes in local networks directly affect the responsiveness of authority to oppressive harms. For instance, a study finds that in places with the most active participants in the Black Lives Matter movement, the uses of body-cameras and community policing increased significantly after the Black Lives Matter protests in the Summer of 2020. Compared with census locations with a lower rate of protests and organizing activity, active locations had an additional 15% to 20% decrease in police homicide before and after the Black Lives Matter protests (Campbell, 2021). The larger and more frequent the protests were,

⁹⁴ According to Levy & Mattsson (2019) was an increase in reporting of sexual crimes by 10% in the first six months after the movement which persisted over time.

the wider the gap was between the homicide rates before and after the protests (Campbell, 2021).

The #MeToo and Black Lives Matter movements' success shows that participating in social movements gives us the power to stop bad things like sexual harassment or police homicide from happening. They also show that preventing these bad things from happening requires intervention at both local and higher levels. Although demonstrations at the national and global levels provide momentum and visibility for a movement's concerns, individuals need to hold one another accountable in their immediate environment for change to be possible and sustainable. Thus, individuals have a moral obligation to support the movement when they are aware it is likely to be effective in remediating or preventing harms. However, this conclusion requires some clarifications.

The first point in need of clarification is that Singer's principle only requires us to prevent something bad from happening, not promote something good. For social movements, however, preventing the bad and promoting the good must come together. Otherwise, we will have what Melo Lopes (2019) calls "meaning vertigo," which is "a form of anxiety about social meanings and social coordination" (p. 2519). Such meaning vertigo can lead to distinctive moral harms. For example, Melo Lopes argues that although gender norms are increasingly contested, the lack of alternative concepts has led to a "rise of women-led movements reinstating patriarchal practice in the name of feminism" (2019, p. 2517). But this meaning vertigo is in itself bad and requires prevention. Thus, the use of Singer's principle is legitimate for social movement participation.

The second point in need of clarification is that social movements can be very demanding. In fact, behind every successful movement that only requires a post on social media

or a few hours of protest in the street, there are many activists and community organizers who have dedicated their lives to the cause. They make many sacrifices, and their lives are riddled with difficult choices that they need to make under pressure and with high uncertainty. Singer's principle is not particularly useful in discussing this kind of sacrifice. However, activists and organizers are not the only ones who are necessary for social progress. Movements need a massive body of people standing in solidarity and providing support in everyday and mundane ways. Thus, the weaker version of Singer's principle is enough to make a claim about the imperative of participation or support: "if it is in our power to prevent something *very bad* from happening, without thereby sacrificing *anything* morally significant, we ought, morally, to do it" (1972, p. 231).⁹⁵

For most people, supporting a movement in a minimal way requires sacrificing hardly anything of moral significance. Arguably, even more active engagement with social movements does not require much sacrifice either. The transformation of social networks for the participants of a movement does not require membership in an organization. As scholars of social movements argue, "By going to places, being connected to several groups or associations, patronizing specific venues, cafes, or bookshops, individuals create and reproduce dense webs of informal exchange" (Della Porta & Diani, 2020, p. 130). That is how informal social networks constitute subcultures of oppositional dynamics, which help keep collective identities alive even without any overt opposition to authority. Such informal networks also create "opportunity spaces" for people who were not formerly well-connected. Such interaction spaces allow holders of specific worldviews to reinforce their mutual solidarity and create alternative lived experiences (see Creasap 2012; Haunss and Leach 2009).

⁹⁵ My emphasis.

The importance of distance in Singer's principle is the third point that needs to be clarified. Singer's principle famously takes "no account of proximity or distance" (p. 231). He uses this principle to argue that we have the same obligation to someone who is thousands of miles away as we do to someone in front of us. However, from a relational perspective, Singer's principle has another implication. We should consider that geographical proximity does not always correlate with the "shortest path length"⁹⁶ that connects two individuals or their fragmented networks. For instance, if Uighurs or Palestinians were Christians instead of Muslim, the powerful Western countries' response might have been different from what it is now regardless of their distance. Similarly, if George Floyd—the Black man who lost his life to the unnecessary and excessive force used by a police officer in daylight in a public place—was not Black, maybe he would still be alive.⁹⁷ In the former case, the difference in path length, or the fragmentation and isolation of the Muslim community from the network of power and care in the Western world seems to be the real cause of neglect, not the actual geographical distance. Similarly, the bystanders' insensitivity to the way that a Black man is treated because of the marginalization and fragmentation of his group is more relevant than his proximity to people who witness his death.

In regard to both Muslims and Black men, powerful bystanders fail to see the victims as members of their trust or care network. Even if there is some sympathy, it is sporadic and not organized or coordinated enough to stop the violence. In other words, the average path length

⁹⁶ The shortest path length and average path length are two of the most important measures to determine the networks topology. For instance, the average number of clicks that gets us from one website to another determines the average path length between two websites. Similarly, the average number of people who one has to communicate through to contact a complete stranger represent the average path length for the cluster of the network the one is a part. Fragmentation increases the path length when individuals belong to different clusters. It also happens when an individual is not well-connected, and her connections are not well-connected either.

⁹⁷ For the empirical data on the likelihood of getting killed in interaction with police based on age, race-ethnicity, and sex see Edwards, Lee, & Esposito (2019).

between any given person in the network of power is too long to extend empathy and care to the victims. Moreover, the more fragmented a network is and the longer the average path length, the more important it is to make connections. The reason is that the very same fragmentation that represents itself in terms of path length between individuals is the cause of the oppression and its distinctive harms. Attending only to people closer to oneself in the network of social relations will perpetuate the oppressive social order.

Although reorienting resources to powerful networks is problematic, connecting to people outside of one's network is not always harmless or easy. Thus, perhaps the most minimal requirement is to ask people to connect to those in one's network who have the smallest overlap in their connections. This strategy can have the additional advantage of using local knowledge held and produced by people in a cluster that allows them to address their problems effectively without ignoring other clusters. As I explained in this chapter, chapter-based and grassroots social movements benefit from such simple acts or reconnections.

The last point in need of clarification about the implications of Singer's principle is whether number of participants affects one's obligation to support a movement. Singer argues, "the fact that there are millions of other people in the same position, in respect to Bengali refugees, as I am, does not make the situation significantly different from a situation in which I am the only person who can prevent something bad from occurring" (p. 232). However, the relational feature of social movements again leads to a different conclusion. When more people in one's network join a movement, the more the responsibility to participate grows, not diminishes. Not only does the cost of participation start diminishing, but more participation in collaborative problem-solving increases the efficiency and quality of results (Lazer & Friedman,

2007). Moreover, people's lived experiences from all walks of life are necessary so as to arrive at the best possible results.

The fact that a movement is necessary to make change possible is another reason to believe that individuals' obligation to resist does not increase when not enough people are involved. In this situation, supporting a fringe or an isolated and thereby extremist movement can resemble uncoordinated individual action: high in cost with a negligible positive outcome. However, for a growing movement that has already entered one's social network and demands minimal sacrifice, Singer's principle is sufficient to show that there is no excuse to abstain from engagement.

It is neither possible nor necessary to determine how much sacrifice is "little sacrifice" because the fluidity of the network dynamic changes what individuals are willing to or can contribute. For example, speaking up against sexual harassment does not have the same outcome as it used to in many social circles. Based on who we believe and why, speaking up can have different consequences. With broader support, speaking up or supporting women who speak up, all things considered, is more, not less, of an obligation than it used to be. Therefore, there is a dynamic threshold after which, all things considered, supporting a movement is a moral obligation. However, below such a threshold and for movements that are still in early stages and require greater sacrifice, Singer's principle does not require individuals to support the movement.

Chapter Six: Conclusion

My goal in this dissertation was to show that a paradigm shift in our theory of explanation towards complexity theory can justify resisting oppression through participation in social movements. I also used Singer's argument to show that participating in social movements is a moral imperative. I started with the assumption that being oppressed is bad and leads to various moral harms. I argued that individuals bear the harms of oppression in virtue of their membership in different social groups. However, in Chapter 2, I showed that groups are not just the aggregate of individuals shared properties. In Chapter 3, I argued that such notion of groups or justification for grouping individuals based on a common feature has serious descriptive and normative problems. I showed that the dominant explanatory frameworks of explanation, namely methodological and various forms of non-reductive explanation that deny the mutual dependency between individuals and groups fail to provide an adequate justification or criteria for grouping individuals.

In Chapter 4, I showed that the interconnection and malleability of individuals and their attributes explains the social world's complex and dynamic nature. Thus, I argued that the proper framework of explanation for problems that involve such interconnection and malleability—problems that involve well-integrated systems—is complexity theory because social systems are complex dynamical systems. I also showed that interconnection and malleability explain the importance of heterogeneity, positive and negative feedback loops, non-linearity and stochasticity. I further discussed the importance and legitimacy of emergence and self-organization when social systems exist at a critical state: at the edge of chaos. Finally, I showed the strength of complexity theory in theorizing social change in Chapter 5. In what follows, I

briefly sketch how complexity theory can justify grouping individuals based on features like race and gender to theorize oppression. I also show how such justification can guide our moral response to the harms of oppression.

From the complexity standpoint, a social group is a collective of individuals differentiated from other collectives by various cultural practices. These collectives are clusters of interacting individuals that fragment the social relations network. I showed that the cultural practices that differentiate groups maintain the fragmentation in the network of social relations. Moreover, following Weber, Tilly, and Anderson, I showed that such fragmentation in the network of trust, communication, and interaction is a central feature of an oppressive social system.

According to Singer's argument, the duty to prevent something bad from happening is dependent on whether anything of comparable moral importance needs to be sacrificed. By sacrificing anything of comparable moral importance, he means causing something equally bad to happen, or "doing something that is wrong in itself, or failing to promote some moral good, comparable in significance to the bad thing that we can prevent" (1972, p.231). In Chapter 5, however, I argued that resisting oppression requires sacrificing things of moral importance, given the systemic approach to oppression. Thus, even if we accept that resisting oppression is a moral imperative, we will end up with a dilemma at best. According to this dilemma, neither resisting nor enduring oppression is morally right. Two categories of reasons can be identified against resisting oppression: one relates to causal explanation and another to moral justification. These reasons undermine the moral permissibility of resisting oppression by any means. However, I showed that such a resistance is not only permissible but also an obligation.

The causal explanatory reasons include concerns about the sustainability of progress and its possibility. The dysfunctional norms and practices that maintain an oppressive social order involve stabilizing mechanisms. Furthermore, these mechanisms create an equilibrium state that everyone benefits from maintaining. Thus, the concern is that progress will not be sustainable or even possible given such stabilizing mechanisms and equilibrium states. However, I have argued that a paradigm shift towards complexity theory addresses these concerns.

I have also showed that sustainable progress is possible when it follows a change in social relations networks. The emergence of new connections across the social network creates new opportunities and incentives that make progress sustainable. Also, new norms of collaboration emerge out of the new bonds in the network. These new norms further stabilize the connections and provide incentives for maintaining them. I also showed that progress is possible even though individuals at the equilibrium states have incentives to maintain the existing social order. Such incentives can be to the benefit of exploitation or fear of retaliation. However, either way, all things considered, individuals would be better off remaining within the scope of the equilibrium.

The equilibrium states are states in which deviation is costly for everyone. But this cost changes when features of the interaction networks change. For example, when the fragmentations and connectivity level between different clusters change, individuals often move smoothly from one equilibrium to another. New norms of collaboration emerge that involve the lived experience of the marginalized and their dynamic heterogeneity. New connections destabilize the fragmentations and allow for new and possibly more democratic forms of self-organization, with less exploitative clusters. These connections put the system in a critical state in which moving from one local equilibrium to another does not require great sacrifices.

The critical takeaway here is that social movements are in a privileged position to make sustainable progress possible. In this sense, social movements are a particular form of social organization that emerges from repeated and patterned interactions and coordination between multiple actors. Such an organization involves weak and dynamic ties that allow the network to grow in already existing networks. This growth is responsible for destabilizing the fragmented networks and providing incentives for individuals to connect and act differently. These new norms and incentives can make a progressive change sustainable. The same cannot be said about uncoordinated and isolated individual actions or top-down interventions. In sum, resisting oppression in coordination with many others through a social network can make progressive social change possible. Moreover, the distinction between resistance in cooperation and resistance in isolation or top-down intervention addresses the causal explanatory concern.

Even if sustainable progress is possible, it is not guaranteed. The non-linear and stochastic nature of complex and dynamic systems can make the perspective of movements uncertain and undermine the moral justification of supporting movements in the first place. For example, movements are prone to the bandwagon effect or moral hazard. The bandwagon effect refers to the widespread adoption of a norm or act, just because everyone else seems to be doing it, even though the norm is dysfunctional or the act is problematic. Various psychological, social, and economic factors account for this effect. A famous example of this effect is when people vote for a political candidate who appears to have the most support. The individual rationale can be wanting to be part of the majority, but this line of thinking can undermine the efficiency of democratic decision-making and lead to the election of unqualified candidates. Movements are also prone to creating opportunities for abuse, a phenomenon known as "moral hazard" in behavioral science.

Considering the problems that movements can introduce to social change, one might argue that supporting social movements is not morally justified. However, distinguishing different forms of collective actions and their structural networks can show that not all movements suffer from problems like the bandwagon effect, moral hazard, or even backlash to the same extent. Empirical studies show that the decentralized, chapter-based, leaderful, and grass-roots organization of social networks minimizes the risk of such problems. For example, decentralization in networks allows them to control the local level's bandwagon effect and prevent it from spreading. This kind of decentralization that typically exists in a chapter-based organization can be conducive to resolving problems at the local level while coordinating and communicating with other chapters (Crutchfield, 2018). Such organization slows down communication speed and the increase the time individuals and local chapters have to explore their options before becoming convinced that others have a better answer than theirs.

In addition to democratic ideals, the grassroots organization of leaderful movements can minimize the risk of problems like moral hazard. Such movements use interpersonal and psychological mechanisms that protect against the more privileged members of a movement seizing the opportunity to replace the old, oppressive order with a new one. Although such seizure is still possible in such movements, it is less likely to occur, more likely to get corrected, and less destructive because of its limited scope. Comparing grassroots, chapter-based, and leaderful movements with hierarchal movements shows the former's success in controlling and minimizing adverse effects (Crutchfield, 2018).

Progressive social change is possible and requires our support of social movements. I have showed that supporting movements is morally justified and constitutes an effective way to resist oppression and its resulting harms. I also argued that very little is needed of most

participants in a movement to make change possible. Therefore, it is not necessary to sacrifice anything of moral importance to create change, and supporting social movements is a moral imperative.

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