ANARCHIST CYBERNETICS

CONTROL AND COMMUNICATION IN RADICAL LEFT SOCIAL MOVEMENTS

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Thesis Abstract

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This thesis develops the concept of anarchist cybernetics in an attempt to elaborate an understanding of the participatory and democratic forms of organisation that have characterised radical left-wing social movements in recent years. Bringing together Stafford Beer's organisational cybernetics and the organisational approaches of both classical and contemporary anarchism, an argument is made for the value of an anarchist cybernetic perspective that goes beyond the managerialism cybernetics has long been associated with. Drawing on theoretical reflection and an empirical strategy of participatory political philosophy, the thesis examines contemporary social movement organisational practices through two lenses: control and communication. Articulating control as self-organisation, in line with cybernetic thought, an argument is made for finding a balance between, on the one hand, strategic identity and cohesion and, on the other, tactical autonomy. While anarchist and radical left activism often privileges individual autonomy, it is suggested here that too much autonomy or tactical flexibility can be as damaging to a social movement organisation as over-centralisation. Turning to communication, the thesis looks at social media, the focus of another kind of hype in recent activism, and identifies both the potentials and the problems of using social media platforms in anarchist and radical left organisation. Importantly, the thesis takes social media as information management systems and speculates on several core aspects of alternative social media that might be more suited to the kind of activism anarchist cybernetics helps elucidate. By introducing and expanding on the idea of anarchist cybernetics, the thesis provides an account of what anarchist organisations have been, what they are and what they could be.

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> In what can only be described as one of the most exciting experiments taking place in management studies today, a group of heterodox critical scholars have come together who have a common interest in studying how the contemporary world has come to be organized as it is, and how it might be reimagined.[1]

While echoing Colin's sentiments, I must also turn to Stevphen Shukaitis' words that situate the work of the School of Management in a global context:

> Appreciation to the Asian bourgeois for sending their children to UK universities and thus inadvertently providing funding for autonomist social research.[2]

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[1] Williams, C. C. (2005) *A Commodified World?*, London and New Yorkm NY: Zed Books, p. xii.
[2] Shukaitis, S. (2009) *Imaginal Machines. Autonomy and Self-Organization in the Revolutions of Everyday Life*, London and New York, NY: Minor Compositions, p. 5.

Table of Contents

List of Figures

List of Tables

INTRODUCTION

Chapter 1 : 2011, the Year that Changed ~~Everything~~ Nothing

1.1 A Journey to Anarchist Cybernetics

The first time I came across the word 'cybernetics' was in the first few months of my PhD. One of the modules we took as first-year PhD students was 'Theoretical Management Research'. I had a background in anarchist philosophy and so wrote on classical anarchist accounts of organisation in the final assignment. As well as reading some of the classic texts on anarchist organisation from Michael Bakunin, Peter Kropotkin and others, I had a look at some of Colin Ward's work. I had always been impressed by Ward's aim of making anarchism 'respectable'; not to de-radicalise it but to see it taken seriously as an alternative vision of collective organisation. In what seems to be becoming an increasingly well-read short article, 'Anarchism as a Theory of Organization', Ward mentions cybernetics, writing that 'with its emphasis on self-organizing systems, and speculation about the ultimate social effects of automation, [it] leads in a similar revolutionary direction' as anarchism (1966).

This was in the autumn of 2011 and the Arab Spring, the Indignados, Occupy, the Syntagma Square occupation and the UK riots defined the year that *Time* magazine dedicated to 'the protestor'. Paul Mason's widely-circulated blog post 'Twenty Reasons Why It's Kicking Off Everywhere' (later expanded into the book *Why It's Kicking Off Everywhere* (2012)) suggested that radical left ideas about organisation, participation and democracy were becoming visible and durable on a much larger scale than ever before. Central to the discourse around the 2011 uprisings was the role that social media played in facilitating direct democracy and flexible self-organisation. Stories abound about platforms being used by anti-capitalist and anti-dictatorship protestors. As activists involved in the Arab Spring put it, it was a revolution 'planned on Facebook, organized on Twitter and broadcast to the world via YouTube'. Social media and networked technologies, so the story went, were making possible large-scale resistance to capitalism and domination that had previously only existed in small pockets.

It was against this backdrop that I was introduced to cybernetics and made the decision to investigate it, based primarily on the immediately-apparent overlaps between cybernetics and anarchism highlighted by Ward and others. The 2011 uprisings put anarchist organisational ideas such as autonomy and the opposition to domination (features highlighted by Ward's article, as well as those of Grey Walter and John D. McEwan, published in the journal *Anarchy* in 1963) in a mainstream spotlight. My longer-term interest in these aspects of anarchist theory and practice and the ways in which they feature in cybernetics (through the concepts of self-organisation and distributed control) started to converge. As well as this, the focus in cybernetics on communication and the apparent role of social media in the 2011 uprisings were added to the mix. Early in this process, I came across Stafford Beer's organisational cybernetics. I started with Beer's work and, importantly, his experiences in Chile with Salvador Allende's attempts to socialise the economy through Project Cybersyn. This, along with some of the articles written by Angela Espinosa, John Walker and others, struck me as having a great deal of potential to help explain what was happening in the 2011 uprisings, at least in terms of organisation and communication.

If 2011 was a year of hope (as well as rage, as Manuel Castells (2012) has put it), then the subsequent years seemed to be increasingly a realisation of the limits of that hope, or at least of a reassessment of the time-scale of political upheaval and the potential for quick revolutionary change. Rather than 2011 being a Year One of a new, participatory and democratic society or of a mass radical movement, much of the promise, of social media in particular, turned out to be little more than hype. The work of writers like Mason and Castells provided a depiction of social media as a tool for radical politics that, over time, became less realistic, both in terms of how social media were actually used in radical milieus and of the revolutionary potential of mainstream, corporate platforms like Facebook, Twitter and YouTube. Nonetheless, I was convinced that cybernetics could still be used to foster a better understanding of what was going on in these uprisings. Beer's work could still perform the function of a heuristic tool that might help provide a more critical account of connections between radical and anarchist organisation, on the one hand, and the political use of social media, on the other. It was the focus in cybernetics on questions of autonomy, control and communication around which these connections coalesced.

On cybernetics, aside from Beer's work, there were two sources that were the most influential in helping me develop my own thinking around how cybernetic ideas could be applied to radical left and anarchist organisation and the use of social media. The first was Eden Medina's ground-breaking and award-winning book on Project Cybersyn, the work Beer was involved with in Chile. *Cybernetic Revolutionaries* (2011) brought to the fore what it was that I had found most exciting about cybernetics when I first encountered it (it was not until the spring of 2014 that I finally read Medina's book). Andrew Pickering's *The Cybernetic Brain* (2010) was again a book I read relatively late (towards the end of 2014) but which came at the right time as it too helped me marry cybernetics and the prefigurational approach of contemporary radical left and anarchist activism.

As well as these textual inspirations, the research I carried out was empirically rooted in the kind of social movement organisations I am concerned with here. Between February and September 2013, I carried out a series of interviews with radical left and anarchist activists in the Netherlands. On the one hand, this helped me understand how the core themes of cybernetics and of anarchism might operate in practice. On the other, and more importantly, these conversations allowed me to further develop my ideas around anarchism and cybernetics. They provided the focus for my research in so far as the activists I spoke to identified some of the core issues at stake in radical organising. Rather than testing any theories of organisation, this empirical work was built around the idea of participatory political philosophy and the discussions I had were every bit as important conceptually and formatively as the literature I studied.

What has emerged at the end of this journey is not simply an application of Beer's organisational cybernetics to anarchist and radical left organisation, or to the 2011 uprisings. This has been a conversation between the interviews I conducted with activists, the organisational dynamics this research highlighted, activist and academic literature on anarchist and radical left organisation and, finally, the practical experiences and theoretical insights of cybernetics. The culmination of this conversation has come in the form of anarchist cybernetics, an approach to understanding organisation and the role of communication therein that draws on the fundamental concepts of cybernetics: viable systems; autonomy; self-organisation; and functional hierarchy. At the same

time, it also takes these ideas beyond cybernetics, or at least beyond where cybernetics has taken them to up until now.

In many ways, this has brought me back to where I was when I started in 2011: genuinely excited about the prospect of developing a cybernetics-inspired understanding of radical left and anarchist organisation. While the outcomes of the 2011 uprisings have been less positive than many expected at the time (although the story is by no means over and the rise of parties like Syriza and Podemos, for all their contradictions, might suggest the next chapter in the reawakening of the radical left), they have offered important lessons about the potentials and the limits of participatory and democratic organisation and the use of social media within a radical political project. Anarchist cybernetics is suggested, therefore, as a way of articulating these potentials and limits. This thesis tries to do this through philosophical and theoretical reflection that is bound up with empirical research that brings the experiences of activists into these discussions.

Beyond introducing anarchist cybernetics as a potential heuristic tool that might help elaborate on some of the dynamics of radical left and anarchist organisation, this thesis introduces two main research questions as its focus. Firstly, how can control, as self-organisation, be understood in line with anarchist concerns for autonomy and democracy? Secondly, what conceptualisation of communication is appropriate in relation to anarchist accounts of self-organisation? These draw, of course, on Norbert Wiener's characterisation of cybernetics as the science of control and communication in the animal and the machine, and focusing on these two sides of cybernetics can help show how anarchist cybernetics might be put to use not only by scholars but also by activists.

1.2 Anarchism, Social Media and Critical Management Studies

In addition to the overall focus on cybernetics, there are three broad areas of concern at work in this thesis. Firstly, much of the discussions of organisation and of the practical elements of social movement activism will draw on anarchist theory. Secondly, turning to communication, the discussion will centre on social media and how they might act as tools that facilitate certain forms of organisation. Thirdly, and more broadly, this thesis

will aim to respond to debates in critical management studies around both organisation and communication.

1.2.1 Anarchism

In 2011 and later, several writers made the argument that the Arab Spring, the Indignados/15M movement, the Syntagma Square occupation in Athens and, not least of course, Occupy embodied much of the organisational forms that anarchists had been advocating since the middle of the nineteenth century. Aside from overlaps between anarchism and the 2011 uprisings in terms of their content – a distrust of established authorities, a concern for the exploited, the excluded and the oppressed, a desire to create alternative economic and social structures – what interests me here is the actual practices these uprisings enacted. While there is no homogeneous anarchism (and it is indeed better to speak of anarchisms (see Kinna, 2005; Franks, 2006), and a concrete definition is hard to pin down) there are certain features of contemporary anarchist movements that emerged as of central importance in the 2011 uprisings. David Graeber (2011), writing about Occupy Wall Street, highlights a commitment to consensus decision making (alongside prefiguration, which I will discuss below) as one of these features:

> American anarchists have long considered consensus process (a tradition that has emerged from a confluence of feminism, anarchism and spiritual traditions like the Quakers) crucial for the reason that it is the only form of decision-making that could operate without coercive enforcement - since if a majority does not have the means to compel a minority to obey its dictates, all decisions will, of necessity, have to be made by general consent.

In the general assemblies and working groups of Occupy, the protests and revolutions of the Arab Spring and the occupied squares of Spain and Greece, activists (many of whom were mobilised for the first time) came together and decided collectively on both the aims of their movements and the means through which those aims would be realised (see also Bamyeh, 2013; Dean, 2013; Gerbaudo, 2013; Gibson, 2013; Hammond, 2015; Kinna, 2012; Roos and Oikonomakis, 2014; van de Sande, 2013; Williams, 2012). In New York, Cairo, Madrid, Barcelona, Athens and elsewhere, and long after 2011 came to a close, a radical, participatory democracy was enacted in protest camps and in the

main squares of large cities. It is the specific organisational dynamics of this anarchist practice of consensus-based, participatory, democratic decision making, and the role of communication therein, that are of specific interest here.

1.2.2 Social Media

Geert Lovink defines the social media platform as having three core features (2011, p. 5)

> it is easy to use, it facilitates sociality, and it provides users with free publishing and production platforms that allow them to upload content in any form, be it pictures, video, or text.

Ruth E. Page offers a similar definition, highlighting (2012, pp. 7-8) 'the social aspects of the web genres in question, particularly the communicative interaction between participants' and, in terms of communication and production, the importance of dialogic and collaborative potentials. Drawing on Michael Mandiberg's introductory essay to *The Social Media Reader* (2012), the salient feature of various understandings of social media can be identified as a participatory, collaborative account of sociality: participatory and collaborative in terms of communication but also in terms of production. Indeed, he writes that on social media platforms, 'from the audience's perspective, in order to experience the site you *have to become a media producer*' (ibid., p. 1, italics in original). Christian Fuchs and Marisol Sandoval add to this by noting differing sociological approaches to what counts as social, homing in on cognitive, communicative and co-operative factors (2014, p. 6):

> individuals have certain cognitive features that they use to interact with others so that shared spaces of interaction are created. In some cases, these spaces are used not just for communication, but for the co-production of novel qualities of overall social systems and for community building.

Social media, following from this, are those digital, online communications platforms that support cognition, communication and co-operation. Drawing these together, a comprehensive social media platform would be one that facilitates the forming of cognitive understanding, communication and production in a participatory and co-

operative way. Through easy-to-use platforms, users collaborate and converse to co-produce meaning, information, electronic resources and knowledge.

For these reasons, social media have been held up by many as the ideal tools for radical left activism, not least of all in and around the 2011 uprisings. Authors including Castells and Mason, but also Bernard Steigler (2009) and Jeffrey Juris (2008), have written highly of the potential that social media has to facilitate radical politics, focusing on ideas such as crowd-sourcing, non-hierarchical communication and organisation and the ability of activists to influence discourse. On the other side of the debate, more sceptical authors including Fuchs (2014a), Tiziana Terranova (2000), Evgeny Morozov (2011) and Kylie Jarrett (2008) point to continued corporate control of communications and public discourse, the exploitation of free labour and the individualising tendencies of mainstream social media platforms (for an overview, see Fenton and Barassi, 2011; Frenzel, 2014, pp. 905-906; Markham, 2014). The position I want to take here on social media, that will be properly developed in the third section of this thesis, is one that attempts to steer a path between optimistic and pessimistic accounts. While social media undoubtedly have their problems, I also aim to recognise that they do present a great deal of potential in terms of what they can offer radical left and anarchist politics. Along these lines, I will attempt to present, on the one hand, an appraisal of the suitability of mainstream social media (Facebook, Twitter, etc.) for radical activism seen through a cybernetic lens and, on the other, a case for alternative, activist-oriented social media designed specifically to facilitate the kinds of organisation anarchist cybernetics might help in articulating.

1.2.3 Critical Management Studies

The argument put forward here, that an anarchist reading of Beer's organisational cybernetics can be put to use in developing an understanding of radically alternative forms of organisation, is situated within broader discussions in critical management studies (CMS) around anarchist and, more generally, alternative organisation. While I do not focus on CMS literature exclusively, it is an important landmark in relation to which I situate my research. It might seem odd in speaking about radical left social movements and anarchism to turn to management theory, but CMS has, since its

inception in the early 1990s, approached management and organisation not as phenomena that are exclusive to business but that ought to be studied as any other discipline would study its subject matter (Parker and Thomas, 2011; see also Reedy, 2014). Often, CMS approaches take inspiration from a range of left-wing and alternative positions, such as feminism, Marxism, queer theory and critical theory (see Swann and Stoborod, 2014 for a discussion of anarchism in relation to these and other influences on CMS). At the same time, CMS also involves a concern for alternative organisation and for the kinds of practices that might replace the corporate-oriented ones found in businesses and that are taught in mainstream management schools. It is to this side of CMS, the one that looks at alternative organisation, that this thesis aims to contribute.

Against the background of existing debates around alternative organisation (e.g., Böhm, 2006; Kokkinidis, 2014; Parker et al., 2007; Parker et al., 2014; Sutherland et al., 2013) as well as anarchist organisation more specifically (Land, 2007; Parker, 2011; Reedy, 2002; see also the recent journal special issue on the topic: *ephemera: theory & politics in organization*, 2014; Kinna, 2014), my intention here is to build on what has been described (Swann and Stoborod, 2014, p. 592) as the budding green shoots of CMS research that deal with anarchist theory and practice, and which may well have been hidden beneath the snow since Gibson Burrell's inclusion of it in 1992 as one of the left-wing influences on CMS (1992, p. 82).

In CMS, an opposition to what are described as 'performative' approaches to studying management and organisation has been expressed by several scholars (most notably, Fournier and Grey, 2000). Performativity is characterised as an uncritical attitude, the aim of which is 'to contribute to the effectiveness of managerial practice [and to] the production of maximum output for minimum input' (ibid., p. 17). In response, several authors working within CMS have highlighted the importance of a turn to looking at alternative organisation (e.g., Böhm, 2006; Parker et al., 2014). Situating this thesis within debates around alternative organisation, however, does not mean that an alternative kind of performativity plays a role. Instead of approaching alternative organisation from the standpoint of means that are justified by ends understood according to some quantitative measure of achieving set goals, my general approach here is what one could call a 'prefigurative critical management studies'. That is, a

CMS that contributes not to mainstream management but to these alternatives (for an example of such an approach, see Land and King, 2014). Efficiency and success can be understood prefiguratively as the extent to which organisational forms allow for those involved to realise goals such as emancipation and equality in the here and now. This may well prove to be a contentious and overly-partisan position for social science or philosophy to take. It is, however, the approach in which this thesis can be situated: CMS yes, but a CMS concerned with studying and contributing to alternative organisation, a prefigurative CMS.

1.3 Overview of the Thesis

The broad aim of this thesis is to develop an understanding of, on the one hand, several key dynamics of the kind of anarchist organisation seen in aspects of the 2011 uprisings and including autonomy, participatory democracy and self-organisation, on the other, the role social media can and do play in such dynamics. While Beer's organisational cybernetics provides a number of insights, particularly as regards his idea of viable organisation, what I will attempt to do here is to take several features of his work further than he did in his own writings. To this end, the idea of an 'anarchist cybernetics' will be proposed. Many accounts of cybernetics begin with communication (and related concepts such as information) and from there discuss organisation, seeing these as the two core elements of cybernetics. Given my focus in this thesis on radical left organisation, I will take an alternative route that starts with organisation and from there highlight the role of communication. This is not to say that communication is less important but simply that from the standpoint reflected in this thesis, it will be helpful to focus initially on organisation. Overall, I aim to put anarchist cybernetics to work in articulating and critically assessing some of the organisational dynamics of radical left and anarchist organisation.

I begin, in Chapter 2, with an introduction to cybernetics and the work of Beer. From its inception in the 1940s by the likes of Wiener, Margaret Mead, Gregory Bateson, Heinz von Foerster and others, cybernetics developed as a way of understanding complexity and self-organisation in a range of fields, from neurophysiology to electrical engineering, from mathematics to anthropology. Beer's organisational cybernetics took

insights from the study of control mechanisms in these fields and applied them to human organisation. While he focuses primarily on the firm, I will extrapolate his conclusions to all forms of social organisation.

Chapter 3 examines the short-lived meeting of cybernetics and anarchism, during which the idea of self-organisation was taken as referring to participatory and democratic forms of organisation. While this discussion gets to the heart of Beer's organisational cybernetics, it does so by taking the core elements further than Beer did in theory or in practice. In this chapter I will outline the idea of an 'anarchist cybernetics'. This is at once a version of cybernetics that focuses on anarchist and radical left organisation and a move to go beyond the limitations of Beer's organisational cybernetics. It is this concept of anarchist cybernetics that will frame the discussions in the rest of thesis. I use it both as a heuristic tool to help expand an understanding of radical left and anarchist organisation and as a work in progress that through an engagement with these kinds of organisation can be developed further.

In Chapter 4, I take a step back from developing anarchist cybernetics as an account of radical left and anarchist organisation and look instead at how the empirical research project discussed in later chapters was designed and how it changed over time. Key to the type of empirical work I carried out has been the idea of participatory political philosophy. This proposes an approach to research that combines philosophical reflection with empirical research (ethnography, participatory observation and qualitative interviews) and a concern for an anarchist cybernetic understanding of knowledge production and research ethics.

Chapter 5 begins the work of analysing my empirical engagement with anarchist and radical left activists, on the one hand, and contributing towards the philosophical development of anarchist cybernetics, on the other. Chapter 5 acts to set the scene for the following two chapters in that it outlines anarchist approaches to organisation and discusses the organisational settings the activists I interviewed were involved in. This chapter will help elucidate some of the basic elements of participatory and democratic self-organisation.

Sticking with the question of organisation, Chapter 6 turns to the distinction between tactics and strategy in radical left and anarchist organisation. This is inspired both by Beer's understanding of viable organisation and by the reflections of the activists I interviewed on the strengths and weaknesses of the organisations they are involved in. The distinction between tactics, which involves a space for autonomous decision making and action, and strategy, which deals with democratically agreed-upon constraints on this autonomy, is further augmented with the introduction of grand strategy. Grand strategy helps bring into anarchist cybernetics the role of paradigms or worldviews that frame radical left and anarchist organising.

Chapter 7, following on from this discussion, focusses on autonomy in anarchist cybernetics and on the precise nature of how it is understood in practice and what mechanisms operate in anarchist and radical left organisation to both promote and restrict autonomy. While restricting autonomy may seem antithetical to anarchism, with its professed love of liberty, I will argue in Chapter 7 that the collectively-defined autonomy that anarchist cybernetics helps elaborate in fact depends on constraints that are agreed-upon in a democratic and participatory way. Consensus decision making, vetoes and standing aside, common features of contemporary social movements, will be examined as to how they contribute towards collective autonomy.

Moving on from the organisational dynamics of radical left and anarchist groups, Chapter 8 opens a discussion of social media and communication practices and how they relate to anarchist cybernetics. As with Chapter 5, this chapter aims at providing a background sketch of the communication practices the activists I interviewed engage with, both in terms of the internal communication of the groups they are members of and the external communication between these groups and those outside them. The core focus on Chapter 8 will be the idea of many-to-many communication.

Building on this introductory background, Chapter 9 examines the fundamental nature of communication on social media. Characterising the experience of social media communication as one of noise and information overload, Chapter 9 suggests how, from an anarchist cybernetic standpoint, the role of information can be understood in organisation and how a democratic and participatory response to noise and overload might provide a more prefigurative and viable solution than is common on mainstream

social media platforms like Facebook and Twitter. While the model of communication put to work by cybernetics, and implied in anarchist cybernetics, comes under critique, a radical approach that sees potential rather than threat in noise is proposed.

Chapter 10 brings the various strands of the discussions together by proposing a framework for alternative social media platforms. Seeing social media not merely as communications infrastructures but as information management systems, Chapter 10 discusses several critiques of mainstream social media, based on the discussions I had with activists. It suggests how anarchist cybernetics might be used in defining and developing activist-oriented platforms that can play a role in radical left and anarchist organisation. Focussing on the tripartite distinction between tactics, strategy and grand strategy, alongside the notions of collective autonomy and an anarchist cybernetic response to noise and information overload, this chapter concludes with an overview of (what could be) the key features of an alternative social media platform.

In concluding the thesis, the final chapter pinpoints and summarises the core conclusions of the preceding chapters. More than this, however, it suggests how anarchist cybernetics may be taken forward as a heuristic tool and as an understanding of anarchist and radical left organisation. While the focus in the thesis has been on organising outwith the structures of political parties, the conclusion suggests that the resurgence of the mass party in 2014 and 2015 points towards a development of radical left activism and a way in which anarchist cybernetics can be put to use in examining the organisational and communication dynamics that might bridge the gaps between an institutionalised radical left politics and the social movements that sustain it.

SECTION 1 : CYBERNETICS, ANARCHISM AND PARTICIPATORY POLITICAL PHILOSOPHY

Chapter 2 : Stafford Beer, Organisational Cybernetics and the Viable System Model

2.1 Introduction

In trying to understand the forms of participatory and democratic decision-making and organisation that take place in radical left-wing social movements, and that have been hailed as successful elements of the 2011 uprisings, I want to look in the first instance not to social movement studies or even critical management and organisation studies, but to cybernetics. I want to assert that radical left and anarchist organisation is primarily about self-organisation, a topic at the heart of cybernetic thought. Cybernetics has a history going back to the Second World War and originates in technological and physiological descriptions of automated systems. This is one meaning of self-organisation: a system, an organism or a machine, that can regulate itself. Cybernetics quickly developed, however, to deal with social and political organisation. Here, self-organisation, at least potentially, refers to democratic decision-making: how people can collectively manage themselves with little or no hierarchical control. I want to start this chapter with the inception of cybernetics in the 1940s.

2.2 Norbert Wiener, the CIA, Soviet Cybernetics and St. Gallen

One of the first times cybernetics is mentioned as a concept is in Plato's dialogue *Alcibiades*. There, Socrates likens the art of governance to steering a ship (117c-d). The Ancient Greek word κυβερνήτης (kyvernítis, kyberné:te:s[3] or kybernetes) literally refers to the act of steering or piloting. The term occurs again, some 2,000 years later, when Ampère uses it (in the French *cybernetique*) to describe the science of government (1843). In modern English, the word 'governor', both a person who wields authority and a machine part that provides automatic regulation, comes to us via this route. It was

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[3] I have to thank Mate Kapović for pointing out in an online discussion this often-overlooked translation of the Ancient Greek into Latin script.

the connections between automatic control and self-regulation via feedback mechanisms in electronics, engineering, neurophysiology and biology, that suggested the name to the man who is considered the father of cybernetics, Norbert Wiener.

Wiener's interest in these ideas came as a result of his involvement in developing self-aiming anti-aircraft guns during World War Two,[4] coming to fruition in his 1948 book *Cybernetics*. He first defined 'cybernetics' as the scientific study of 'control and communication in the animal and the machine' (Wiener, [1948] 1961; see also 2003). Wiener's book was published on the back of his involvement in a series of conferences, the Macy conferences, that took place in the 1940s and 50s (see Kline, 2015 for a thorough overview of the Macy conferences, their origins and legacy). The aim of these conferences was to bring together scientists from a range of disciplines to find common ground and develop a lingua franca that could be used to communicate ideas across disciplinary boundaries (Scott, 2004). As anthropologist Margaret Mead put it (1968, p. 2), cybernetics, which emerged as a result of these conferences, is 'a form of cross-disciplinary thought which made it possible for members of many disciplines to communicate with each other in a language which all could understand'. The Macy conferences included insights from social sciences and anthropology, notably in the form of the involvement of Mead and her husband Gregory Bateson (Mead and Bateson, 1976). Wiener's subsequent books, *The Human Use of Human Beings* ([1950] 1989) and *GOD & GOLEM, Inc.* (1964), dealt with social questions, although he was sceptical as to the potential for the kind of rigorous analysis cybernetics developed in electronics and physiology being applied in social sciences (Mirowski, 2002, pp. 64-65; Medina, 2011, p. 25; Kline, 2015, p. 37).

From here, cybernetics developed in a number of ways.[5] In the United States it became involved in the nascent fields of computing and artificial intelligence (Mead and Bateson, 1976; Scott, 2004). There, cybernetics was tied up in Cold War politics and has been linked to CIA funding and the mind control project MKUltra (Umpleby, 2005; Kline, 2015, pp. 185-190), although Wiener publicly rejected military funding for

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[4] Philip Mirowski provides an in-depth account of the genesis of cybernetics in the scientific mobilisation in the US during the war (2002).
[5] See Hayles, 1999; Mirowski, 2002; Medina, 2011, p. 9; Kline, 2015 for wider histories of cybernetics than I can provide here.

research after the war (Wiener, 1947). The funding that came to cybernetics in the US was a response to fears about Soviet developments in the field and of the Soviet Union overtaking the West in computing power. The Soviet interest in cybernetics, interestingly, points towards that original definition of cybernetics as the study of governance found in Plato and Ampère.

While Russian and Soviet scientists and mathematicians had an influence on Wiener's early work (Zhuralev and Gurevich, 2010), it took some time before cybernetics was established as a field in the Soviet Union. Up until Stalin's death, cybernetics was vilified as a Western pseudoscience, but later, under Khrushchev and Brezhnev, it was rehabilitated and combined with Marxist-Leninism and dialectical materialism to become an orthodoxy of sorts in Soviet science (Mikulak, 1966; Ford, 1966; Mead, 1968; Gerovitch, 2004; Peters, 2012). The aim of Soviet cybernetics was to use computing power to allow for the automated management of the planned economy, ultimately making production and consumption more rational and efficient (see Dyer-Witheford, 2013 for a recent reappraisal of the aims of Soviet cybernetics in line with a more radical politics). This episode in Soviet history has been beautifully rendered in Francis Spufford's novel *Red Plenty* (2010).

Around the same time as Soviet scientists and philosophers were grappling with how to integrate cybernetics into a centrally-planned economy, management theorists in Switzerland focused instead on turning cybernetics towards business and management consulting. At St. Gallen University, a group of academics developed a model of organisation, the St. Gallen Management Model, that took the core ideas of cybernetics around self-regulating systems and feedback and applied them to management structures, with a manager maximising the potential of a workforce and steering an organisation (Ulrich and Krieg, 1974; Malik and Probst, 1982; Rüegg-Stürm, 2005). So while the St. Gallen model of management and the Soviet approach to a planned economy may seem quite distinct, they do in fact share this common element of top-down managerial control (Beyes, 2005). Within these two developments of cybernetic thought, decision making was reserved for managers and experts. While the St. Gallen model can be identified as one of the end-points in the history of cybernetics, a position to which the tradition came and was formulated in an applied way, targeted at specific forms of organisation, it draws heavily on the work of an earlier cybernetician, Stafford

Beer. It is the work of this scholar and practitioner of cybernetics that will form the basis of the discussion of cybernetics included here.

2.3 Stafford Beer and Second-Order Cybernetics

Anthony Stafford Beer was born in 1926 in England (for biographies see Pickering, 2010 and Whittaker, 2009). Beer began working at a Sheffield-based subsidiary of United Steel, founding their Operational Research Group and later running the Operational Research and Cybernetics Group. He worked later as a consultant to both businesses and governments, bringing the insights he developed in a series of books (ten over the course of his life (see Beer 2004 for an overview)) to organisational practice. Beer died in Toronto in August 2002, at the age of 75.

While Beer was taken as the inspiration for the St. Gallen model by those who designed it, there is another reading of his work that involves seeing Beer not as a thinker of first-order cybernetics (which is linked to top-down control by managers and experts) but as one of second-order cybernetics, which is the tradition of cybernetics I am most interested in here.

For first-order cybernetics, the world and the systems and organisations in it are assumed to have an independent existence from those who observe them. In organisation theory and politics, it is linked to top-down forms of organisation in which leaders or managers command from a position of authority that is removed from the inner workings of the organisation. This view, however, was challenged by Mead, Heinz von Foerster and others with the concept of second-order cybernetics (Mead, 1968; von Foerster, [1991] 2003), which views the observer and the thing observed as parts of one larger system and eschews any hard separations between them. Further to this, second-order cybernetics takes a 'radical constructivist' approach (von Glasersfeld, 1991) to knowledge and epistemology, such that 'our observations are not direct observations of a "reality", rather they are constructions based on particular sets of assumptions' (Scott, 2004, p. 1374). These constructions can be used to help us adapt to and navigate our experiences (von Glasersfeld, 1991). Second-order cybernetics laid the foundations for discussions of the autopoietic systems (systems that reproduce

themselves) defined by Humberto Maturana and Francisco Varela (1980, see also Hayles, 1999, Chapter 6; Duda, 2012, pp. 169-172 for an overview of Maturana and Varela's contributions) as well as of Niklas Luhmann's communication and systems theory (1995).[6]

While Timon Beyes (2005) characterises Beer as subscribing to first-order cybernetics and highlights this as an influence on the management model of the St. Gallen group, Andrew Pickering (2010) provides an alternative reading of Beer, one that is more in line with second-order cybernetics and, importantly, with how I will draw on Beer's work in this thesis, which may well differ from how his work has been taken up in the St. Gallen Management Model.

2.4 Organisational Cybernetics

Beer's organisational cybernetics takes the ideas developed by Wiener and others and uses them to shed light on the dynamics of organisation in business and management. The model he developed that helps explain these organisational dynamics, the Viable System Model, is central to the account of cybernetics I want to outline in this chapter. It is based on the core ideas of cybernetics: complexity; control; self-organisation; and communication. While the language Beer uses in his accounts of organisational cybernetics is focused on management and firms, I will try to show how the ideas at the base of his cybernetics can be used to elaborate on the kind of organisation relevant to radical left and anarchist theory and practice.

2.4.1 Complexity

For Beer, cybernetic approaches to self-organisation apply primarily to the most complex and indeterminate phenomena. In *Cybernetics and Management*, he identifies six types of system[7]: simple and deterministic (e.g. billiards); simple and probabilistic

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[6] The distinction between first- and second-order cybernetics as it's presented here is something of a simplification. First-order cybernetics actually has more in common with the pragmatism of Charles Sanders Peirce and others than it does with any naïve realism.

[7] Beer characterises systems as 'anything that consists of parts connected together' (1967, p. 9). He goes on to say: 'A car, a pair of scissors, an economy, a language, an ear and a quadratic equation: all these

(e.g. coin tossing); complex and deterministic (e.g. planetary movements); complex and probabilistic (e.g. conditioned reflexes); exceedingly complex and deterministic (of which he says there are no examples); and exceedingly complex and probabilistic (e.g. the economy, the brain or a company) (Beer, 1967, pp. 12-19; see also Beer, [1981] 1994: 49; Jackson and Carter, 2007, p. 121).

Systems	Simple	Complex	Exceedingly complex
Deterministic	Window catch	Electronic digital computer	EMPTY
	Billiards	Planetary system	
	Machine-shop lay-out	Automation	
Probabilistic	Penny tossing	Stockholding	The economy
	Jellyfish movements	Conditioned reflexes	The brain
	Statistical quality control	Industrial profitability	THE COMPANY

Table 1: Simple, complex and exceedingly complex deterministic and probabilistic systems. (Adapted from Beer, 1967, p. 19)

It is on this last type of system, which displays exceeding complexity and is probabilistic in nature, that his organisational cybernetics focuses. Beer writes that this type of system is 'so complex and so probabilistic that it does not seem reasonable to imagine that it will be ever fully described' (1967, p. 17). Human behaviour is of this sort, and as a result so is social and political organisation. The precise mechanisms at play cannot be fully observed, only approximated based on certain observations, and the number of possible states of being of the system of organisation are so many that it is not only complex but exceedingly complex. While a coin toss is probabilistic, the possible states are limited to heads or tails: you cannot reasonably know which one it will land on but it will always be one of the two. Social and political organisation,

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things are systems. They can be pointed out as aggregates of bits and pieces; but they begin to be understood only when the connections between the bits and pieces, the dynamic interactions of the whole organism, are made the object of study.'

however, is not only probabilistic (you cannot know with complete certainty what the next state will be given the previous state) but also exceedingly complex as the number of possible states is beyond simple determination. While Beer posits the company for social and political organisation, below I will highlight important distinctions between companies and social movement organisations. In terms of complexity, however, the above applies to all social and political systems and organisations.

The complexity, or exceeding complexity, of a system or organisation can also be understood according to the notion of *variety*, i.e. the variety of possible states a system or organisation might have and the potential of changes in these states. The challenge for cyberneticians like Beer is to try and develop and understand ways of *controlling* this variety. The problem is made all the greater by the fact that variety exists not only in systems and organisations themselves but in their coupling with other systems and organisations and with their environment (which are also complex and probabilistic). In true second-order fashion, Beer is clear that any descriptions of the complexity or otherwise of a system or organisation are not objective but constructed and depend on why and how we, the observers, want to describe the system or organisation (1967, p. 13). One of the foundational principles of cybernetics, one that Beer puts at the centre of his organisational cybernetics, is Ashby's Law or the Law of Requisite Variety. Named after its originator, Ross Ashby (1956; [1958] 2003), it is based on mathematical proofs and states that in order for a system or organisation to remain stable and able to operate effectively in a certain environment, it must display the same amount of variety as the environment (Beer, 1967, p. 50). If the environment is simple, with only two states, then the system or organisation need only have two states in order to maintain itself within that environment. In an exceedingly complex and probabilistic environment, however, a system or organisation needs to itself be exceedingly complex and probabilistic.[8] John Duda puts it well when he writes (2012, p. 92):

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[8] It should of course be noted here that the distinction between a system or organisation and the environment is not as easy as I make out. If a system is understood as a collection of parts interacting with one another then obviously as a system interacts with anything then that once-external part and the original system become a larger system. This makes saying what is a discrete system or organisation difficult if not impossible. A second-order cybernetic approach to this problem recognises that the distinction between a system and its environment is partial and only from the perspective of a certain observer (see Cilliers, 2001; Espinosa, Harnden and Walker, 2008, pp. 639-640).

Ashby's law explains that one cannot expect a system to be able to regulate itself (i.e. adapt to a changing and possible dangerous environment) if it doesn't have a potential range of regulatory responses equal to or greater than the number of potential external stimuli it might have to deal with.

The complexity discussed by cyberneticians is always framed in terms of a quantity: any system or organisation will have X number of possible states. Ashby, for instance, speaks about the 'richness' in the interactions between the parts of any complex system, but translates this into a hypothetical quantity (2003, p. 362). Variety, for Ashby, is measured in 'bits', or 'binary digits' (1956, p. 126; Umpleby, 1987). While this may be a necessary feature of the mathematics of cybernetics, the way in which I will draw on the tradition here does not presuppose any necessary translation of qualitatively rich interactions into quantities. Complexity, as I use it here, is more of an analogue concept. One can speak of high and low complexity, and even of higher and lower complexity, while avoiding representing this complexity as a precise number of states; just as one can determine whether a crowd of people is relatively large or small without counting each individual person. This may well be a controversial approach in terms of cybernetics, but as Beer is clear in relation to exceedingly complex systems, we would never be able to put a number on the amount of potential states of a system or organisation, so whether they are referred to in terms of quantity or quality is moot.[9] Complexity then, rather than any strict number of possible states, refers more to a general situation of fluctuation and unpredictability in which the environment and the organisation or systems itself change in ways that cannot be determined in advance with any certainty. It is along these lines that Angela Espinosa, Roger Harnden and Jon Walker write about complexity. They describe it as the process whereby 'the internal dynamics of the organisation and the external niche change in a never-ending dance' (2008, p. 640).[10]

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[9] Beer does in fact lean in this direction and he points out that complexity is 'amenable to the making of *comparative* statements (this has *more* variety than that)' (1985, p. 22, italics in original).

[10] As Mirowski highlights, Wiener's original ideas around complexity had it more as an existential threat to be defeated (2002, pp. 56-58). This is counter to the second-order cybernetics position I draw upon here.

The job of cybernetics, then, is to identify the mechanisms whereby systems and organisations are able to deal with (i.e. control) this exceeding complexity and to participate in this never-ending dance without compromising their ability to achieve goals and their overall stability. According to Beer and others, organisations must be able to respond to complexity by displaying as much of a capacity for change and fluidity. For Beer, the crucial notion here is effectiveness, or viability. Cybernetics, according to him, is the 'science of effective organisation' (1973, p. 3) and he defines effective, viable organisation as that which can continue to pursue its goals while participating in this dance with complexity and variety (by both responding to and, where appropriate, reducing that complexity (Beer, [1981] 1994, p. 50)). The goals of the organisation don't matter. Indeed, this account of effectiveness applies to any and all organisations and systems (ibid., p. 4). As Beer says, it is not that all organisations are the same but that in order to survive they must all be capable of responding to complexity without compromising their own existence and ability to pursue their own goals. The metaphor of a dance with complexity echoes the way Ashby describes the process of control as being similar to a fencer facing an opponent. '(I)f a fencer faces an opponent who has various modes of attack available,' he writes, 'the fencer must be provided with at least an equal number of modes of defence' ([1958] 2003, p. 356; see also Ashby, 1962)). Control and regulation are processes of responding to the unpredictable moves of another dancer (again, the complexity can be threatening or, in the case of a dance or in fencing, it can be more of a friendly game or a negotiation).[11]

Control is not something enacted by an entity, be it an individual or a group, over an organisation or system. It is not something that stands outside, above or at the top of an organisation and that transmits orders down a chain, telling the parts of the organisation how to act. Control is a process or behaviour that is distributed throughout the organisation (Beer, [1981] 1994, p. 25) and it is facilitated not through centralised command but through autonomy and self-organisation. Cybernetician Gordon Pask defines control as 'broadly equivalent to "problem solving" but it may also be read as

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[11] Fred Steier and Daniel Blaeuer draw a parallel between cybernetics and choreography that is interesting in this regard (2008).

"coming to terms with" or "explaining" or "relating to an existing bodily experience"' (1971, p. 76, quoted in Pickering, 2010, p. 322). Leonard (2013, pp. 16-17) puts it well:

> A cybernetic understanding is not the control that is backed up by coercion […] It is the control of a skier going down a hill, of balancing this way and that. Or it is the control of a helmsman steering a ship. The one thing that people do not realize about [cybernetics] is that the control is in each function, not top-down […] That makes cybernetics more of a science of balancing than a science of control.

2.4.3 Self-Organisation

Self-organisation is a sticky concept for cybernetics. Ashby, for example, argues that it cannot exist. He bases his argument on the second-order cybernetic position that viability or effectiveness is always determined as such by an observer of a system. Self-organisation suggests that a system responds effectively by itself to complexity. Along these lines, self-organisation is not a property of the system itself but of the observation (1962; see also von Foerster, [1960] 2003; Duda, 2012, p. 89). While this may apply to mathematical, biological and engineering applications of cybernetics, it is fundamentally at odds with organisational cybernetics and the cybernetics of social and political organisation more generally. A more fitting account of self-organisation, one that is applicable to both the cybernetic need for control and the specific nature of social and political organisations, is the more common one of a group of people deciding amongst themselves, to achieve some goal(s). Stewart Umpleby (1987) highlights this simple definition by contrasting two situations:

> A teacher can organize a class into groups by assigning each child to a specific group and picking the group leaders. She could also tell the children to organize themselves into groups of five and then let them get on with it in a self-organizing fashion.

The simple definition Umpleby suggests works best in outlining what I mean by self-organisation here (see also Beer, 1985, p. 30). Anthropologist Arturo Escobar, writing in the context of radical social movements but also referring to organic systems, defines self-organisation well as 'bottom-up processes in which simple beginnings lead to

complex entities, without there being any master plan or central intelligence planning it' (2009, p. 395).

It is this approach to self-organisation that I will take up in this thesis because it fits best with Beer's account of control in organisations. Of interest here, then, is a concept of self-organisation that has more in common with democratic decision making and political understandings of autonomy than it does with the mathematical, biological and engineering perspectives of Ashby and von Foerster (see Duda, 2012 for a discussion of the relationship between scientific and political accounts of self-organisation). Crucially, this also shifts the focus of self-organisation from something observed by a third-party to something enacted and experienced by participants. This is less relativist in tone as self-organisation is no longer a property of a description but is a process that actors wilfully engage in.

For Beer, autonomy is crucial to how control operates. The individual parts of any organisation must be granted a level of autonomy, while remaining within the organisation and committed to its overall goals (Beer, [1981] 1994, pp. 158-162). In a rigidly centralised organisation, responses to changes in the environment and within the organisation itself, to complexity, will be too slow to allow the organisation to remain effective or viable (ibid., p. 103; see also Leonard, 2013, p. 17). It is by allowing the parts of the organisation, in their own environmental niches and in collaboration with one another, the scope to respond to the complexity they encounter in their own way that an organisation can be considered viable. Espinosa, Harnden and Walker (2008, p. 642) write that organisational cybernetics

> helps us […] to create more effective organisation by engaging the energy and intelligence of local constituents in the overall endeavour. The experience of maximum local autonomy is […] one of the logical requirements for ensuring effective organisation.

Or, as philosopher and media theorist Alexander Galloway writes, 'each agent is endowed with the power of local decision according to the variables and functions within its own local scope' (2014: 114).

Beer took his own work in this direction, describing radically democratic processes of collaboration (1994). As John Duda puts it, in this context self-organisation can be understood 'as radical democracy and horizontal self-determination' (2013, p. 57). Central to understanding how autonomy and self-organisation, understood from the perspective of organisational cybernetics, can be applied to practices of democratic decision-making is how communication is facilitated within an organisation. Indeed, it is communication that is at the core of how practices of autonomy and self-organisation can be made a reality. Returning to Wiener's original definition of cybernetics as the study of control and communication, autonomy and self-organisation are the control aspect. The communication aspect deserves equal consideration.

2.4.4 Communication

Organisational cybernetics identifies organisations as not only consisting of parts that must be granted a certain level of autonomy for the organisation to remain viable, but also linkages between these parts. In ways that make apparent the connections between cybernetics and systems theory (e.g. von Bertalfanny, 2003), Beer describes systems or organisations as a series of dots on a page (1967, pp. 10-11, italics in original).

> The connectiveness of the system can now be introduced into this picture by drawing lines between the dots […] In this way, we come to look upon a system as a kind of network. […] [t]he lines depicting the network of our system are in fact its *communications*.

Indeed, the lines of communication, as they are understood by an observer and by those communicating, actually define the very shape of the system or organisation. Ashby too focuses on communication and goes so far as to argue that organisation is nothing other than parts connected via communication (1962). For Beer, the parts of a viable organisation need to be able to coordinate their activities both in relation to one another and in relation to their role as part of a larger organisation (so that the organisation can achieve its goals, retain its identity and continue to exist). Crucially, there must also exist communication channels through which the complexity of the environment is made known to those inside the organisation.

One of the core ideas in cybernetic thought when it comes to communication is that of feedback. Beer in fact highlights feedback as 'the most important concept of all' ([1981] 1994, p. 32). Feedback explains how information,[12] from the environment but also the internal workings of the organisation itself, plays a role in how the various parts of the organisation operate autonomously. Beer is keen to stress that feedback does not mean what it is commonly thought to mean, i.e. a response to something. Instead, feedback refers to the way in which information about the changes a part of an organisation or system faces are used to help that part maintain an agreed level of operation or to work towards an agreed goal. Information coming into an operating unit of an organisation or system about what is happening, both internally and externally, allows it to direct its work in a certain way. If the goal is to remain in a stable state, negative feedback will allow a part of an organisation or system to regulate its behaviour in order to return to that state if it diverges at any point. If the goal is to work towards something, negative feedback will likewise allow that systemic part to change its behaviour depending on whether it is closer to or further away from the path that leads towards that goal. Positive feedback would be where the reaction to the information would cause the behaviour to move further away from stability or a certain goal (see Sayre, 1976, pp. 48-64 for an excellent overview of feedback in cybernetics).

A simple example of negative feedback can be seen in the experience of riding a bike. This practice involves both stabilising and goal-directed behaviour in the sense that you ride towards something but also try to stay upright. If you are riding and a gust of wind blows you to the right, you will of course need to correct for this and steer ever so slightly to the left to remain both on course and upright. This is how negative feedback operates and in this example the gust of wind can be taken as the stimulus that acts as information, communicated to you via various senses and to which you respond by altering your behaviour.[13]

While communication between the parts of an organisation, as Beer makes clear, can be as simple as informal chats over cups of tea, the networking infrastructures and

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[12] Here I use information in the colloquial sense. In Chapter 9 I will discuss the mathematical definition of information that is central to early cybernetics.
[13] I have borrowed this example from Roel van Duyn (1972, pp. 85-86), a Dutch anarchist activist and writer whom I will return to in the following chapter.

information sharing allowed by computers contribute to these crucial elements of the cybernetic view of organisation. Beer is adamant that computers should be used to instigate the restructuring of organisations along the lines suggested by organisational cybernetics (1967, pp. 214-217). Computers should be applied in facilitating lines of communication and making autonomy within organisational limits more practical, ultimately extending the self-organising capacity of organisations (see also Duda, 2012 on cybernetics and networked communications). Information management systems (e.g. Hirschhman and Klein, 2011) are one of the ways in which networking technologies are directed towards these ends. Peter Checkland, for example, whose work in systems theory draws on cybernetics, describes them as 'service systems, created to serve or support people taking purposeful action' (2011, p. 109). Leonard (1999), writing specifically in relation to Beer's organisational cybernetics, identifies several information management systems that are relevant to self-organisation and networks. Information systems research is largely focussed on IT infrastructures put in place within organisations, but as Bernd Carsten Stahl suggests (2008, p. 2), 'emerging technologies', as he puts it (referring to social media) can equally be considered as information systems in that they do play a role of facilitating certain actions by allowing people and groups to make use of communication to organise.

2.4.5 The Viable System Model

In Beer's work, these different elements of cybernetics (complexity, control, self-organisation, autonomy, communication) come together in a practical way. Perhaps his most enduring contribution to cybernetic theory and practice is the Viable System Model (VSM). Beer introduces the VSM in *Brain of the Firm* (1972c), further developing the idea in *The Heart of the Enterprise* ([1979] 1994) and *Diagnosing the System for Organization* (1985). Because of the way in which the VSM ties together the various strands of organisational cybernetics and presents them in a schematic form that highlights the practicalities of organising, it is of particular interest here and is important for the discussion of anarchism and cybernetics in the following chapters. While a lot has been written on the VSM since *Brain of the Firm* (from Beer himself see 1989; from others see e.g. Espejo and Harnden, 1989; Leonard, 1994; Jackson, 2002, pp. 158-162; Pickering, 2010, pp. 240-256; Medina, 2011, pp. 34-39), it remains in

many ways the clearest account and later attempts at describing the model have not altered it in any great way.[14] Angela Espinosa, Roger Harnden and Jon Walker (2008, p. 641) describe the VSM as being made up of

> a set of operations (which do something or have something done to them), a meta-system (which reflects on the various distinct operations from the perspective of an observable whole), and the environment within which it impacts and sustains itself.
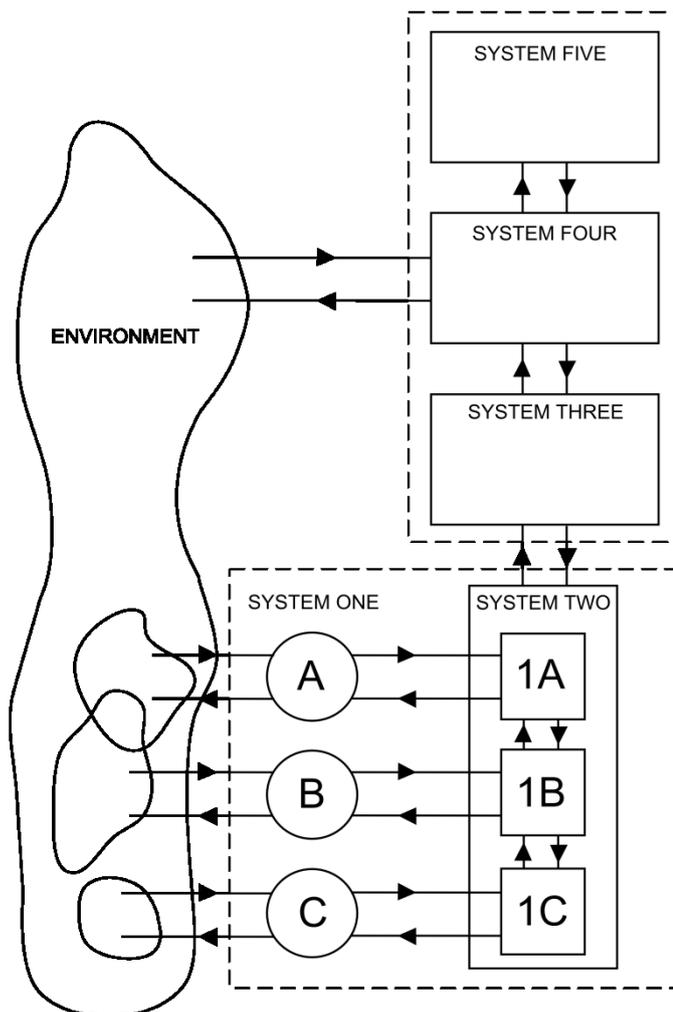
Figure 1: The Viable System Model, showing three System One units (A, B, C) and their interaction with their local niches and one another (1A, 1B, 1C), their coordination under System Two and the strategic alignment of the whole organisation at Systems Three, Four (in relation to the whole environment) and Five. The arrows represent the lines of communication between parts of the model. The dotted lines

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[14] The description of the VSM provided here is intended to lay the foundations for the discussion of anarchism in the following chapter, and indeed for the analysis in the main body of the thesis. For this reason I will engage with it critically in only a minor way at this stage, presenting it as Beer does.

indicate the two broad sections of the model. (Based on Beer's depiction of the VSM in Brain of the Firm ([1981] 1994, p. 128))

System One

The System One units of the model represent the operational parts of an organisation. The System One units operate on specific tasks within the external environment and each unit has its own environmental niche. It is these units that have the autonomy to respond to changes in their niche as they see fit.

System Two

The second level of the VSM is a framework within which System One units are able to communicate with one another and coordinate their activities so that the activities of one System One unit do not negatively affect the activities of another. As Beer writes, System Two 'exists to provide a local interaction between Systems One of all of the subsidiaries' ([1981] 1994, p. 127). This affords a minimal level of coordination between System One units but does not provide organisational goals. As Beer puts it, they 'hunt about aimlessly' (ibid., p. 129): as yet there is no purpose or overarching goal to their operation. This is where System Three comes in.

System Three

System Three constitutes the first level of the VSM that involves coordination and regulation within overall organisational goals. In addition to the five sub-systems, Beer divides the VSM into two broader sections. The first, lower part of the system or organisation 'has to do with recognizing that there are other autonomous divisions than my own' while the second, higher part of the system or organisation, the metasystem, 'has to do with recognizing that my own autonomous division is part of a corporation' (ibid., p. 179). System Three regulates the operations of System One units in line with the goals of the system or organisation (Leonard's account of this is particularly clear: e.g. 1999; 2009; 2013). A terminology I will return to throughout describes the higher part of the VSM as the 'metasystem' and the lower parts the 'operating system'.

System Four

The fourth level of the VSM, System Four, is where the immediate strategy of the system or organisation is developed. It involves those activities that take in information from System Three about how the lower, autonomous System One units are operating as well as information from the environment of the system or organisation as a whole about changes and fluctuations and how the behaviour of the system or organisation responds to and affects these. In addition, it is involved in transmitting information between System Three and the planning and longer-range strategic thinking and decision-making at System Five. In doing so it must translate the organisation's overall goals in ways that System Three can use to regulate the operations of Systems One and Two. In addition, it must decide how much information about the environment and the system or organisation itself is passed onto System Five.

System Five

At the top of the VSM is System Five. This level Beer describes as the 'senior management': 'The direction of the enterprise, with its concentration on where we are going rather than where we have come from, with its foresight that is to say, is the thinking part of the whole organisation' (ibid., p. 201). This is, of course, a rather unfair characterisation as every level of the system or organisation is thinking. What Beer means is that looking at the system or organisation as a whole, System Five, the board room of the senior management of the firm, is the part that deals with the planning for the system or organisation.

Recursion

A crucial point to note in discussing Beer's VSM is the idea of recursion. If we take one single organisation, and identify the various levels and systems within it, we can also identify the way in which this organisation acts as a System One operating unit of a larger system. At the same time, any System One operating unit will itself, if we look at how it is organised, be understandable as a VSM with Systems One-Five present. Within each System One unit of an organisation there will also be smaller, departmental Systems One-Five. At the same time, the organisation as a whole will be part of group of organisations and again different organisations might operate as System One units,

coordinate to some extent and be subject to the overall goals of that grouping. As Beer writes, linking this to the firm (ibid., p. 228):

> If the viable firm is organized like this [according to the VSM], so is its major viable unit. If the unit is organized like this, so is its viable sub-unit – the individual factory, for example. If the factory is organized like this, so is the individual viable shop of which the basic unit is the section of which the basic unit is the man [sic].

2.5 The Politics of Cybernetics

As I mentioned above, while Soviet Cybernetics focussed on the computing and information applications of early cybernetics and the St. Gallen Management Model on Beer's ideas around viable systems, both adopted a top-down approach to control. In both cases cybernetics is put in service of more efficient and successful management by individuals or groups of individuals with a position of hierarchical authority over others in the organisation or system. There is, however, another tradition within cybernetics that is more closely aligned to more radical ideas of participation, democracy and self-organisation, one that similarly draws on Beer's organisation cybernetics but that takes it in a different direction to the St. Gallen Management Model.

This has its roots in Beer's experiences in applying his cybernetics ideas to the socialist economy of Chile under Salvador Allende, between 1971 and 1973 (Eden Medina's *Cybernetic Revolutionaries* (2011) provides by far the best account of this episode; see also Medina, 2006; Beer [1981] 1994). Elected as president of Chile in 1970, Allende set about restructuring the economy of the country in line with socialist ideals of equality and worker participation. Some of those involved had read Beer's early books (1966; 1967) and invited him to consult on bringing cybernetic insights to the project of socialising the Chilean economy. Project Cybersyn was the result, and aimed to, as Medina puts it, 'create social relations that were consistent with the political ideals of the Allende government' (2011, p. 75). Using what little computing power Chile had and a network of telex machines in factories, Beer and a team of Chilean engineers and technologists were able to link the country's factories in an information network that in

many ways prefigured the networked communications of the internet (Espejo 2014).[15] While industrial democracy was a key goal of Allende's government and of those involved in Project Cybersyn, the short life-span of the project saw it focused on efficiency and productivity and the democratic gave way to the technocratic (ibid.; see also Ulrich, 1981). In some ways, then, the outcome of Project Cybersyn might be not that dissimilar to the Soviet cybernetic project mentioned above. Medina (2011) highlights the gendered division of labour and class politics inherent in Project Cybersyn that similarly determined its limits politically.

Taking inspiration from the potential in Project Cybersyn, specifically its aim of being 'broadly participative, decentralizing, and antibureaucratic' (Medina, 2011, p. 93), Espinosa, Harnden and Walker define a political application of organisational cybernetics that is more closely aligned to democratic accounts of self-organisation. Focussed on environmental sustainability and direct democracy (e.g. Walker, 1998; Espinosa, Harnden and Walker, 2004; 2008; Espinosa and Harnden, 2007), they show in various ways how viability at the social and political level demands a real ability for individuals and groups to make decisions within their own niches and to develop wider-reaching policy in a democratic way. They aim to identify mechanisms that are tied to information management systems but also face-to-face discussions (e.g. Espinosa, Harnden and Walker, 2004) which facilitate (Espinosa and Harnden 2007: 402)

> autonomous individuals using their right to govern themselves to live in a more sustainable community; […] to involve the people and institutions in the process; […] to transform the structures of power towards more self regulatory state-societies

Elsewhere, they write (Espinosa, Harnden and Walker, 2004, p. 578):

> [a]t all levels people must have the freedom (within cohesive limits) to live their own lives. It is only when you become an autonomous individual that you can participate responsibly in a democratic organization.

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[15] Although as Rob Myers notes (2015), ARPANET, the network that acted as the basis of the internet, went online in 1969.

Here, then, the autonomy of the VSM is linked with democratic values of responsibility and participation.

The work carried out by Espinosa, Harnden, Walker and others (e.g. Birrer, 1999; Livas, 2003; Bausch, 2004; Schwaninger, 2004; Leonard, 2006; Stokes, 2006) that takes the ideas of self-organisation and autonomy that lie at the heart of Beer's organisational cybernetics seriously as political ideals is undoubtedly important. Nonetheless, it has its limits in terms of the aim of this thesis in exploring an anarchist version of cybernetics. While they identify methods of promoting local autonomy and direct democratic governance, they do so within the structures of a social democratic state. I argue that for them, a political cybernetics is still wedded to representative democracy and an ideal of elected officials who are responsive to the demands of their electorate. The limits to the autonomy and self-organisation of groups and communities, according to this line of thinking, come from established structures of governance. Beer often recounted the time he discussed the Viable System Model with President Allende in Chile (e.g. Beer, [1979] 1994, p. 264). When Beer came to the highest level of the model, Allende is reported to have shouted 'At last, el pueblo!' 'At last, the people!' But this idea of 'the people' is tied up with the notion that the will of the people is best represented through elected officials. Beer's ideas for expanding Project Cybersyn would have seen these officials have access to up-to-date statistics on the population's moods towards government policy. This would allow the government to respond to 'the will of the people' while keeping the people themselves at a remove from political decision-making. In this thesis I will take cybernetics in a different direction in terms of self-organisation and autonomy, focusing instead on organisations that operate outwith the hierarchical structures of state government.

2.6 A Critique of Cybernetics

One academic discipline that makes mention of the organisational aspects of cybernetics, is critical management and organisation studies (CMS), a tradition that has more or less rejected cybernetics as authoritarian and that would no doubt take issue with the political application of cybernetics in the ways mentioned above. Organisation theorists Gibson Burrell and Gareth Morgan characterise cybernetics as one example of

the functionalist paradigm in sociology, that is, sociology that takes the world as an objective reality and that, is focused on improving the efficiency and productivity of organisations (Burrell and Morgan, 1979; Morgan, 1980). On the whole, references to cybernetics in this school of thought are few and far between and tend to discuss it in the context of systems theory (Checkland, 1994; Galliers, Mingers and Jackson, 1997), second-order cybernetics (Baeker, 2006; Seidel and Becker, 2006), communication and postmodernism (Jones, 2003) and an interesting account of approaches to the relationship between the human body and technology (Cooper, 2010). Hugh Willmott does offer a more sustained discussion and critique (1997a: 323-326) which draws on the readings of Burrell and Morgan as well as the work of Beer. Willmott's account is the most sympathetic and presents less of a straw man conception of cybernetics than others in the field.[16]

In writing on the notion of management as a science, Willmott identifies Beer's cybernetics and his work in Chile as a 'sophisticated example of knowledge guided by a technical interest in prediction and control' (ibid., p. 323) that is allied with modernist and positivist approaches to science. The claims then are, firstly, that cybernetics subscribes to a positivist view of the world and, secondly, that the role of managers, organisational experts or technocrats is to measure and manipulate this world. As indicated above this is a critique shared by the likes of Espejo who was involved in Project Cybersyn but put this down to the contextual specificities rather than the theory of cybernetics itself. Forms of organisation, according to the CMS account of cybernetics, are to be designed by such experts for other people to slot into. Pickering rightly aligns this critique with 'the spectre of Big Brother' (2010, p. 31). While closer examinations of the history of cybernetics (e.g. Duda, 2012) reveal engrained concerns for democracy and emancipation, concerns side-lined or ignored by the critiques highlighted above, the development of neoliberal capitalism since the 1960s and the incorporation of radical ideals within managerial practice (Boltanski and Chiapello,

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[16] Willmott's critique mirrors much of that presented by Werer Ulrich in his response to Beer's work on Project Cybersyn in Chile (Ulrich, 1981). Elsewhere in this thesis I will draw on Ulrich's critique as it will help in framing the specific version of cybernetics I want to develop here. Similar critiques were made at the time, for example by John Adams (see Medina, 2011, p. 191-192) and Theodore Roszak (Kline, 2015, p. 241). French activist collective Tiqqun has in recent years returned to this critique of cybernetics (2010; see also The Invisible Committee, 2014; Hall, 2015, pp. 17-18).

2005; Bell, 2014, pp. 1024-1026) may point towards an additional problem with cybernetics, namely its use in pursuit of corporate profit and top-down control.

Elaborating on these critiques of cybernetics, several key themes can in themselves be subjected to a more critical analysis than perhaps has been done within the cybernetic tradition itself. The core elements of organisational cybernetics discussed above were complexity, self-organisation, autonomy and communication. Key to how Beer's work is taken up here, how it might be applied to radical left-wing social movement organisations and how his work has been given a political spin by Espinosa and others, is reading these ideas as politically radical. Crucially this takes cybernetics beyond Beer's work and deepens the commitment to autonomy and self-organisation. The ideas involved, however, are not always understood in this way and there are those who would argue that the core concepts of cybernetics are in fact far from radical and instead are fully-incorporated within neoliberal discourses of efficiency and flexible business. Raul Espejo applies cybernetics to corporate performance but was involved with Project Cybersyn in Chile and has contributed to the political approach taken by Espinosa and others. He has also described the potential in cybernetics for improving corporate performance (Espejo et al., 1996, p. 71).

> Corporate survival depends on less well defined work patterns, supported by better communications and a greater recognition of interdependencies among the organization's members as they collaborate in teams that are often temporary and, to a large degree, self-regulating.

Michael C. Jackson makes a similar point when he argues that '[p]eople need to be flexible and self-regulating and to concern themselves with good communications' (Jackson, 2002, p. 171). Indeed, it would be wrong to forget that organisational cybernetics, for all its radical potential, did emerge from Beer's business consultancy work and can perhaps be as easily incorporated within a neoliberal discourse of flexibility as it can within more politically radical ones.

More specifically, in CMS – in addition to the specific responses to cybernetics discussed above – there have emerged considerable critiques showing how ideas such as complexity, autonomy and horizontality, while appearing to constitute a new and more

humane paradigm in business and organisation, in fact operate to consolidate capitalism and further the authoritarian control of individuals. Haridimos Tsoukas, for example, introduces ideas of complexity and unpredictability and links them to similar organisational forms as is suggested by the cybernetics perspective: '[d]iversity, change and adaptability are much more valued today than hierarchy, rigidity, standardization and uniformity' (1998, p. 294; see also Levy, 2000 for an overview of complexity theory and organisation studies). He draws the same connections as cybernetics does between complexity and self-organisation, but at the same time highlights the work of free market proponent Friedrich Hayek in relation to complexity and organisation. Hayek showed an interest in cybernetics in the 1950s and 60s (e.g. Hayek, 2013) and while he never developed this in his work, the notions of complexity and self-organising systems (self-organising through competition rather than cooperation) did influence his account of the free market as a tool for allowing order to emerge from chaos (Cooper, 2011; see also Gilbert, 2005). Hayek was of course one of the key architects of the theories that supported neoliberalism and, in a sad irony, was involved in advising the dictatorship of Augusto Pinochet that had toppled the government of Salvador Allende in Chile that Beer had become so invested in (Harvey, 2005). While complexity has been discussed thus far in relation to the potential for self-organisation in a way that may well run parallel to radically political accounts (see also Maeckelbergh, 2009, pp. 203-210; Purkis, 2004, pp. 51-52), it is important to note that there is a competing narrative around complexity theory, one that takes it in a dramatically different direction.

Autonomy and ideas of self-organisation and horizontality, too, have been subject to critique. As Steffen Böhm, Ana C. Dinerstein and André Spicer highlight (2010), autonomy can represent genuine self-empowerment or it can become embedded in the emotional aspects of work that Maurizio Lazzarato (1996) describes with the concept of immaterial labour. Calls for greater team work, flexible working arrangements and more scope to 'be yourself' at work may seem like workplaces are becoming more humane spaces, but underlying this are methods of governmentality (e.g. Foucault, 2008) that define what autonomy should look like and that make sure it is channelled towards the goals of the organisation, which are unquestionable and to which workers have no ability to shape (e.g. Weiskopf and Loacker, 2006; Weiskopf and Munro, 2012). When, towards the end of his life, Beer stated (2004, p. 857) that cybernetics was less about

command and more about 'governance', he did not show an awareness of just how disputed the idea of governance is and how bound up neoliberal, authoritarian governance is with the notion of autonomy. This was not something Beer, despite his frustration with dominant corporate and state forces in the world after his experiences in Chile, acknowledged in any great way.

As Böhm, Dinerstein and Spicer put it (2010, p. 28), there is an antagonism at the heart of the concept of autonomy. On the one hand, autonomy opens up frontiers of resistance and change towards radical practices, an equal society and self-organisation. On the other, there is always a danger of hegemonic regimes to take up the call for autonomy and incorporate it into their own projects. Crucially, as J. Christopher Paskewich argues (2014), the kind of horizontal, self-organisation at the heart of contemporary neoliberalism differs greatly from the self-organisation that is fundamental to radical politics. What this may come down to is whether ideas of complexity, self-organisation and autonomy are mobilised to empower individuals and groups or whether they are put to use in disempowering people and submitting to the control of the market as a mechanism for managing complexity. Wiener, for his part, dismissed any connections between cybernetic ideas of self-organisation and the notion of a free-market guided by an invisible hand ([1948] 1961, p. 159; see also Duda, 2012, p. 76). I would argue that the account of cybernetics provided by the likes of Willmott is, on the whole, a reductive and uncharitable one. Beer's commitment to participatory democracy (1994) and the work of Espinosa, Harnden and Walker on this front would support an interpretation more in line with democratic and participatory politics. Nonetheless, when put into practice, cybernetics may well operate in such a way that imposes control in a top-down manner, against the expressed intentions of Wiener, Beer and others.

Ultimately, the question that motivates a radical reading of cybernetics is whether a cybernetics, or a version of cybernetics, can offer an adequate response to the CMS critique in such a way that draws not only on the history of cybernetics but also on the core elements of its theory and on a potential practice? Can, as Medina suggests (2011, p. 195), '[c]ybernetics, the science of effective control, […] be as powerful as a gun in effecting revolutionary change'? This comes down, fundamentally, to whether the autonomy and self-organisation of organisational cybernetics can be applied not only to limited examples of local operational units but more broadly to the level of organisation

typified by the state, or indeed by the boardroom or senior manager. Could an approach to cybernetics that takes seriously autonomy and self-organisation at the lower levels of the VSM similarly apply to the higher levels of the model? Is the model necessarily hierarchical in the sense that it reflects a top-down organisational structure for an organisation? Could cybernetics be formulated in such a way that it avoids becoming a technocratic method of centralised control?

This thesis aims to respond to these lines of critique not so much by dealing with them directly but by showing how cybernetics may be able to contribute to genuinely democratic and participatory forms of autonomy and self-organisation.

2.7 Conclusion

It should be noted, however, that the counter-argument can be made that these critiques are largely misplaced in so far as they apply directly to cybernetics, and involve a mischaracterisation of what cybernetics is. As Duda notes, decrying cybernetics as functionalist and, following this, anti-democratic, does considerable violence to the history of cybernetics (2012, pp. 259-266). On the other, a closer reading of cybernetics as a conceptual and practical heuristic tool, may throw up similar problems; problems that while not necessary parts of cybernetics may well emerge if one is not too careful and attentive. Showing an awareness of this, I want to go beyond Beer's work on cybernetics and his formulation of the VSM by trying to extend his cybernetics along the lines of self-organisation and autonomy. To do so, I will turn to a political tradition that has perhaps more than any other articulated a rejection of state and other centralised, top-down authorities, anarchism. With its roots in nineteenth-century radical socialism, anarchism has, as a movement and a strand of political thought, been consistently opposed to top-down government. Whether it be in the form of religion, the state or the employer, anarchists have rejected the necessity for centralised control that restricts and even eliminates the autonomy of individuals and groups. Instead, the anarchist tradition has been focused on defining and putting into practice the kind of self-organisation that can be linked to how Beer and others view the lower levels of the VSM. More than this, however, for anarchism, self-organisation is not limited to operational tasks but extends to the very top of any organisational structure.

This would seem to put anarchism at odds with organisational cybernetics. While there may be similarities in the characterisation of the ability of individuals and groups to self-organise and embody the principle of autonomy, for cybernetics there are clear limits to this. A closer reading of how hierarchy is defined according to cybernetics, and indeed of the work of Beer and other key thinkers, however, may well point towards a way in which anarchism and cybernetics can in fact be brought together to elucidate an understanding of autonomy and self-organisation that runs through an entire organisation.

Chapter 3 : Anarchist Cybernetics and Functional Hierarchy

3.1 Introduction

Stafford Beer's organisational cybernetics provides an account of control and communication that, far from the top-down, authoritarian connotations suggested by some of its critics, may suggest a democratic, even radically democratic, image of self-organisation. It is along these lines that a connection can be drawn between cybernetics and anarchism. Anarchism is a political theory and praxis that rejects centralised command and champions both individual and, importantly, collective autonomy. Self-organisation, therefore, can be taken as a bridge between these two traditions of thought, one that links the concerns of cybernetics about control and communication (which can be described as the two complementary sides of cybernetics) with the radical edge of anarchism that is manifest as an anti-authoritarian and anti-capitalist politics. But the connections between anarchism and cybernetics run much deeper than a shared interest in self-organisation. As I will show in this chapter, there have actually been several explicit engagements by anarchist writers with cybernetic theory. In the 1960s, a number of authors saw in cybernetics the potential to develop anarchist accounts of organisation. Here, the core ideas of cybernetics come into play in descriptions of anarchist organisation. Crucially, the understanding of hierarchy as a structural relationship with lower parts of a system subordinated to higher parts is challenged. This shows how cybernetics can be rescued and taken beyond the critique outlined in the previous chapter. Here, I will discuss the relationship between anarchism and cybernetics, focussing on the idea of functional hierarchy. Through this an anarchist cybernetics can be defined that forms the theoretical and practical framework within which the subsequent chapters of this thesis will be constructed.

3.2 Anarchism and Cybernetics

There has been some minimal discussion of anarchism and decentralised organisation in relation to cybernetics, not only the work of Espinosa and others that points in this direction but also that of Maurice Yolles (2003), Ana Paula Baltazar (2007) and, to a limited extent, even Humberto Maturana and Francisco Varela (1980). This work, however, does not identify the connections between cybernetic accounts of autonomy and self-organisation and those found in anarchism that I want to discuss here. Instead, one must look further back in the history of cybernetics and anarchism, to Beer's initial work on organisational cybernetics and the journal *Anarchy*, edited by British anarchist writer Colin Ward.

In 1963, *Anarchy* published two articles that discuss the relevance of cybernetics for anarchism. The first of these two interventions, coming from neurophysiologist and Macy conference attendee Grey Walter (1963), focuses predominantly on explaining cybernetics from the perspective of human physiology and early robotics and only briefly touches on political organisation. Crucially, however, Walter notes (1963, p. 89) that examinations of how the brain is organised cybernetically reveal that 'we find no boss in the brain, no oligarchic ganglion or glandular Big Brother.' He goes on to say (ibid., p. 89):

> Within our heads, our lives depend on equality of opportunity, on specialisation with versatility, on free communication and just restraint, a freedom without interference. Here too local minorities can and do control their own means of production and expression in free and equal intercourse with their neighbours. If we must identify biological and political systems our own brains would seem to illustrate the capacity and limitations of an anarcho-syndicalist community.

This is an instructive passage in so far as it suggests the kind of self-organisation that is relevant to anarchism[17], and does so in reference to cybernetics. It is worth noting that

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[17] See Vieta, 2014 for a historical overview of anarchism and self-organisation. Vieta refers to self-management (*autogestón*), but I would suggest that self-organisation and self-management are similar if not identical concepts, at least when applied to economic organisation.

Walter's son Nicholas was a regular contributor to *Anarchy*.[18] Walter's account mirrors a similar statement by Beer on the form of control at work in cybernetics (2009, p. 25):

> There is no ultimate ganglion in the brain that tells the nervous system what to do. There is no thermostat anywhere in the body with a marker set at the temperature 98.4˚F. And the *Book of Proverbs* reminds us that "the locusts have no king, and yet they go about in bands". In short, democratic systems regulate and organise themselves without benefit of dictat or ukase. They do not have hierarchies of command.[19]

The second *Anarchy* article, written by John D. McEwan (first published in 1963 and republished in 1987), follows from Walter's conclusions and goes into greater depth on the relationship between cybernetics and anarchism.[20] The starting point for understanding the relationship that is drawn in McEwan's article and elsewhere between anarchism and cybernetics is self-organisation. McEwan frames the cybernetics of self-organisation in the following terms ([1963] 1987, p. 57):

> The basic premise of the governmentalist – namely, that any society must incorporate some mechanism for overall control – is certainly true, if we use 'control' in the sense of "maintain a large number of critical variables within limits of toleration". […] The error of the governmentalist is to think that 'incorporate some mechanism for control' is always equivalent to 'include a fixed isolatable control unit to which the rest, i.e. the majority, of the system is subservient'. This may be an adequate interpretation in the case of a model railway system, but not for a human society. The alternative model is complex, and changing in it search for stability in the face of unpredictable disturbances[.]

Crucially, McEwan addresses self-organisation in much the same way as it was utilised in the work of Stafford Beer and, importantly, can be seen in the political application of cybernetics in the work of Espinosa and others. Complexity, variety and control all

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[18] In her introduction to the 2002 edition of Nicolas Walter's *About Anarchism* (2002), his daughter Natasha mentions that his grandfather, Grey Walter's father, Karl Walter, attended the International Anarchist Congress in Amsterdam in 1907 (Walter, Natasha, 2002, p. 23). She does not, however, mention anything about Grey Walter.

[19] This quotation from Beer is taken from a short essay titled 'Laws of Anarchy', although it should be noted that Beer does not use 'anarchy' in the way the anarchists discussed here do. His usage is reflective of a complete lack of organisation rather than a radically democratic form. Beer certainly wasn't an anarchist, even if his cybernetic ideas can be applied to anarchism (Medina, 2011, p. 41).

[20] Aside from a letter asking for clarification of a misprint in Walter's *Anarchy* article, I have been unable to find any other writings of McEwan's. All that is able to be gleaned from the available information is that he graduated from the University of St. Andrews in 1961 with an MA in Mathematics and Applied Mathematics and that he was based in Manchester as a computer programmer.

warrant attention for McEwan. McEwan compares his account of cybernetic self-organisation to a passage from the classical anarchist theorist Peter Kropotkin that speaks of an anarchist society 'which looks for harmony in an ever-changing and fugitive equilibrium between a multitude of varied forces' (quoted in McEwan, [1963] 1987, p. 52). Both anarchism and cybernetics, then, recognise the complexity and variety that is central to organisations and their environments and, furthermore, both focus on the importance of a constantly shifting harmony or equilibrium. This is a harmony achieved not through top-down, hierarchical control but through autonomous self-organisation. As scholar of anarchism Ruth Kinna writes (2005, p. 68) in relation to this meeting of anarchism and cybernetics:

> [i]n contrast to government control mechanisms, self-organizing systems were controlled from within the organism and could respond to their ever-changing diversity.

This initial affinity between anarchism and organisational cybernetics comes through in how Kropotkin characterises centralised, top-down forms of government as being not only politically and morally objectionable but at the same time ineffectual. Kropotkin writes (1927, pp. 76-7) that 'in all production there arise daily thousands of difficulties which no government can solve or foresee.' Against the plans of those socialists who wish to use the state to manage this complexity, 'the governmentalists' to use McEwan's term, he argues that 'production and exchange represented an undertaking so complicated that the plans of the state socialists, which lead inevitably to a party directorship, would prove to be absolutely ineffective as soon as they were applied to life.'[21] As an alternative to centralised attempts at attenuating variety in society (which would lead to an oppression of individuals' right to live their lives as they see fit) and amplifying variety in the state as an organising body (resulting in a massive bureaucracy), Kropotkin proposes that the workers themselves and their unions administer production in an autonomous manner.[22] As political science scholar Marius

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[21] In addition to this practical disagreement with state socialists, Kropotkin's account of complexity also put him at odds with the Marxist thought of his day which he saw as too rigid in its metaphysics (see Schmidt and van der Walt, 2009, p. 96).

[22] An alternative approach to anarchism and cybernetics that focuses on feedback loops can be found in Roel van Duijn's *Message of a Wise Kabouter* (1972). In a conversation I had with van Duijn in 2013 he suggested that he had come to cybernetics as a result of discussions between himself and Murray Bookchin in the 1960s. Bookchin does use the term 'cybernetics' but does so to refer to high-technology and links it to a centralised, authoritarian corporate state (e.g. 1985), so it seems that he had not engaged with the cybernetics of Wiener and Beer. Van Duijn may have been put onto cybernetics through reading

de Geus, who has also highlighted the parallels between Kropotkin's anarchism and what he refers to as 'bio-cybernetics', writes (2014, p. 869):

> [Kropotkin's] vision of an anarchist society strongly resembles relatively modern bio-cybernetic organizational theories and systems of 'self-regulating' modules. In society there exist basic units (individuals, associations, communes, etc.) which have to possess autonomy, and which can co-operate and federate on a voluntary basis with the other units.

John Duda (2013, p. 64) describes the approach to anarchism of McEwan as 'a shift away from a moral vision of anarchism, outraged at the scandal of domination' towards a paradigm focussed on the 'superior productivity of anarchist organisational methodology', but I would suggest that it in fact tries to show that anarchism trumps top-down government on both counts, without prioritising one over the other. Indeed, the fact that it is present in Kropotkin's work supports the view that it is not a shift that took place in light of anarchist engagements with cybernetics but is a dual-perspective that is present in at least some forms of anarchism from relatively early in the canon. This could be thought of as 'the two sides of the anarchist coin'. On the one hand there is the ethical and political concern for autonomy, while on the other there is the functional concern for effective organisation.

The connections between anarchism and cybernetics were also picked up on by one of the foremost anarchist writers in the latter half of the twentieth century and editor of *Anarchy*, Colin Ward. In an article looking at the notion of anarchism as a theory of organisation (1966), Ward notes that 'Cybernetic theory with its emphasis on self-organising systems, and speculation about the ultimate social effects of automation, leads in a similar revolutionary direction' as anarchism. He develops this connection further in his book *Anarchy in Action* (1974). Like McEwan, Ward approaches the key notions of organisational cybernetics – complexity, self-organisation and autonomy – from an anarchist perspective, noting that anarchists as early as Pierre-Joseph Proudhon understood that complexity and not simplicity is central to autonomy (1974, p. 44). Indeed, Ward writes (1974, p. 50) that

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the work of Gregory Bateson, who was in vogue at this time in radical circles and the ideas of whom can be seen reflected in those of van Duijn on cybernetics (see Kline, 2015, pp. 148-151), but this is pure speculation.

> [h]armony results not from unity but from complexity[…] Anarchy is a function, not of society's simplicity and lack of social organisation, but of its complexity and multiplicity of social organisations. [...] Cybernetics, the science of control and communication systems, throws valuable light on the anarchist conception of complex self-organising systems.

It is this 'valuable light' that I hope to rekindle here.

Two other notable anarchist scholars, Paul Goodman and Sam Dolgoff, also made brief engagements with cybernetic theory. Goodman, as uncovered by Duda (2013, p. 58-60), corresponded with cybernetician Gregory Bateson on the role of centralised authority, with Goodman arguing that 'a complicated system works most efficiently if its parts readjust themselves decentrally, with a minimum of central intervention or control' (quoted in Duda, 2014, p. 59). Dolgoff (1989) later drew similar parallels between anarchism and cybernetics. Unfortunately, this seems to be about as far as the connection between organisational cybernetics and anarchism went. None of these writers, Ward, Dolgoff nor Goodman, developed it any further, and neither did Walter nor McEwan.[23] More generally, cybernetics was losing its sheen in scholarly circles around this time (Kline, 2015, pp. 227-228) and it seems that the anarchist engagement with cybernetics did not enjoy enough traction beyond a small group of intellectuals to become a dominant discourse on the radical left throughout the 1970s and onwards. Based primarily on Beer's work on cybernetics and the writings of classical anarchists on organisation, however, it may well be possible to pick up where Ward, McEwan and the others left off several decades ago and propose an extended anarchist reading of organisational cybernetics. Indeed, the recent peak in interest in cybernetics, as evidenced by the publication of a number of books on the topic (e.g. Hayles, 1999; Pickering, 2010; Medina, 2011; Kline, 2015) as well as critiques from the likes of French activist collective Tiqqun (2010; see also The Invisible Committee, 2014; Hall, 2015, pp. 17-18), makes this a timely moment to return to the connections between anarchism and cybernetics.

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[23] Ward's work on the subject has recently come under discussion (Collister, 2012; 2014; Crnkić, 2013) and Duda (2012; 2013) deals with the connections at some length in relation to the notion of self-organisation.

3.3 Functional Hierarchy

I want to argue throughout this thesis that cybernetics is important for anarchist accounts of organisation because of how it articulates the idea of control as self-organisation and, crucially, how it points towards a balance between centralisation and decentralisation (see Duda, 2012, p. 215). This balance, however, may appear somewhat at odds with anarchism. Indeed, what seems to be holding back the concept of an anarchist form of organisational cybernetics and the VSM is the form of hierarchy involved in the workings of, according to Beer and others, a viable system (see McEwan, [1963] 1987, p. 44). While the model affords autonomy to the operating units, it is a clearly limited autonomy and planning decisions are still centralised at Systems Four and Five of the VSM. Any decisions made by System One units must be done so within the parameters set by System Five, the planning level where decisions about the overall goals of the organisation are made. Beer does at times point towards examples of direct democratic governance (1974, p. 79) and his later work on Team Syntegrity goes deeper on concrete processes of direct democracy (1994). In organisational terms the VSM remains, in how it is presented, however, a centralised affair, even if that centralisation is of a limited scope compared to typical forms of governmental, corporate and political organisation. As Beer writes (1974, p. 71), 'some part of any viable system does what it likes. But of course the autonomous part of the system remains part of the system, and to do that it must take notice of the central regulatory model. To that extent, then, it does what it is told.'

Crucially, at first sight, the VSM seems to be a typical presentation of a hierarchical organisational structure, with bosses at System Five and subordinates at Systems One, even if there is a more participatory nature to the relationship between the two than pertains in mainstream organisations like political parties, trade unions and companies. This is clearly contrary to the anarchist account of organisation which rejects such hierarchical approaches, for, as has been mentioned, reasons of efficiency as well as political or ethical desirability.

Despite this difference in the aims and political sympathies of cyberneticians like Beer and anarchists like Kropotkin, McEwan and Ward, the way hierarchy appears in

organisational cybernetics should not be seen as antithetical to the way anarchists view organisation. As McEwan writes ([1963] 1987, p. 44), 'the usage [of the term "hierarchy"] is a technical one and does not coincide with the use of the term in anarchist criticisms of political organisation'. To show why this is the case a distinction needs to be made between two forms of hierarchy, *anatomical hierarchy* and *functional hierarchy*, made by McEwan in his *Anarchy* article. It is a distinction that, while crucial for understanding not only an anarchist approach to cybernetics but anarchist organisation more generally, hasn't been taken any further than McEwan's use of it in 1963. Like many important ideas, it is small, simple and elegant, and yet it makes a big difference when it comes to configuring the framework of an anarchist cybernetic understanding of organisation. As such it is worth elaborating on at length here. Although McEwan properly elaborates on the distinction between anatomical hierarchy and functional hierarchy, as he notes it does have its roots in Gordon Pask's work on cybernetics.

Pask's 1961 book, *An Approach to Cybernetics*, is a highly technical affair in which he makes the distinction between anatomical and functional hierarchy that McEwan draws on. While not the overall focus of the book, Pask discusses industrial organisation (1968, pp. 61-61):

> [I]magine a busy executive (who acts as an overall controller in the hierarchy) disturbed by *m* callers. Each hour, to achieve stability and get on with his work, he engages a receptionist (who acts as a sub controller) […] The receptionist […] is able to perform the selective operation of prevaricating with callers so that, for example, the one who is welcome each hour is accepted […] In a very real sense, which gives substance to the idea of a "level", the interaction of sub controllers takes place in an object language (talking about callers), whilst the overall controller has a metalanguage (talking about receptionists). There can, of course, be any number of levels.

While this is framed within a typically-hierarchical organisational structure with an executive and a receptionist, the point Pask is getting at is that the hierarchy is also one of levels of language. The highest level in the hierarchy involves a metalanguage that is used to talk about lower levels, which too have a metalanguage to talk about levels lower than them. Although this is clearly a hierarchy such that a level thrice removed from the top, for example, would have difficulty communicating directly with the top and vice versa given the difference in languages, Pask is very clear that this describes a

logical hierarchy of orders, not one that is necessarily rooted in a physical or structural hierarchy (ibid., p. 63). The hierarchy Pask describes, then, is one of higher and lower orders such that actions, events, understandings, etc. at lower levels are dependent on frameworks set by higher levels. It is a way of understanding different functions within a system or organisation and is not synonymous with any kind of actual structure.

Pask describes the implications for this account of hierarchy for self-organisation (1968, p. 111):

> each member must have the possibility, however small, of inverting the structure without leaving his niche to do so. I do not mean "the office boy can rise to be manager". I mean, "in some unspecified conditions the office boy can take the managerial decisions"

Key here is the distinction between the manager as a position and managerial decisions as something anyone in the organisation can in theory take should the situation demand it. Two hierarchies operate in an organisation: one of positions (office boy, receptionist, manager, executive); and one of roles or logical orders (office boy tasks and decisions, receptionist tasks and decisions, managerial tasks and decisions, executive tasks and decisions). The two kinds of hierarchy are quite distinct from a cybernetic perspective. Leonard makes a similar point in relation to the VSM, writing (2009, p. 228) that the different levels

> are functions, not names on an organization chart. It is possible, even likely, that an individual could play a role in delivering a product or a service to a customer and in managing that operation.

She goes so far as to point out that System Five in the VSM, the part of the organisation involved in defining the identity and overall goals of the organisation, can be 'just a routine or an activity' and 'does not necessarily need to be an extra set of people' (2013, p. 12; see also 1999).

McEwan follows Pask's account by making explicit the distinction between the two types of hierarchy, describing them as anatomical hierarchy and functional hierarchy respectively. *Anatomical hierarchy* refers to what is traditionally understood as hierarchy in political or social organisation, i.e. multiple levels with a chain of

command such that each level is subordinate to the levels above it and where the top level has overall control over decision making in the organisation. *Functional hierarchy*, however, applies to an organisation where 'there are two or more levels of information structure operating in the system' (McEwan, [1963] 1987, p. 44). Functional hierarchy involves distinct orders of decision making such that lower order decisions are subject to parameters set by higher order decisions (i.e. higher order decisions are decisions about lower order decisions). Anatomical hierarchy can be seen in, for example, traditional political organisations with a committee at the top and branches that act out the plans of said committee at local levels. A more radical and potentially non- or less-hierarchical organisational form (less hierarchical, that is, than these traditional forms of left-wing organisation), that is common to anarchist political thought, accords to a functional form of hierarchy such that certain decisions are considered to be higher or lower order than others while there are no bodies or individuals that are higher or lower than others. There are, on the functional account of hierarchy, two or more levels or functions within any organisational form. As McEwan writes (ibid., p. 44), phrasing this in terms of a cybernetic understanding of a system or organisation operating in an environment, 'some parts may deal directly with the environment, while other parts relate to activity of these first parts.' This hierarchy, then, is not a structural hierarchy in which certain individuals or groups have fixed roles but a functional one of levels of decision making.

While his presentation of the VSM is often couched in the language of a hierarchical corporate structure, Beer is similarly dismissive of the necessity of such a structure to how a system or organisation operates along cybernetic lines. In the section on the VSM above, I mention that Beer divides the model into two parts: one relating to the autonomous operation of Systems One and Two; and the other relating to the strategic and regulatory functions of Systems Three, Four and Five. He expresses ([1979] 1994, p. 116) his distaste for referring to these two parts as 'junior management' and 'senior management' respectively because of the notion of hierarchy and command this connotes. He rejects the notion that the hierarchy in the VSM is 'equivalent to the political supposition that there must be policy bosses' (ibid., p. 116). Instead, the hierarchical relationship between the parts of the VSM 'is a *logical* relationship, whatever social form it is given' (ibid., p. 116, italics in original). McEwan makes this same point by distinguishing between two broad organisational functions: (a) 'the

complex of actual production tasks'; and (b) '[t]he task of solving the problem of how the group should be organised to perform these first level tasks, and how information about them should be dealt with by the group' ([1963] 1987, p. 47). Again, the hierarchical relation here is one of a logical order between functions.

This understanding of functional hierarchy can be seen in recent discussions of leadership in anarchist organisation. Neil Sutherland, et al. (2013; see also Land and King, 2014) argue that while anarchist groups commit to being *leaderless*, this does not equate to them being *leadershipless*. Sutherland et al. define leadership as a process or function rather than as a structural position. Through mechanisms such as rotating leadership roles and distributing skills and knowledge, anarchist groups are able to include functionally distinct levels of decision making (that would otherwise be characterised by the leader-follower structural relationship) in such a way that leadership is constructed as a 'function and effect' (ibid., p. 16). They write: 'although individuals may take on more of an active leadership role in certain situations, elsewhere, they would step back as others would take the lead' (ibid., p. 17; see Western, 2014 for an alternative take on leadership in anarchist organisation). This counters Paolo Gerbaudo's (2012, pp. 43-44) claim that in anarchist movements leadership roles still coalesce around specific individuals who act as choreographers rather than as leaders. While Sutherland et al.'s account still involves individual activists stepping into (functionally higher) leadership roles, something a functional hierarchy allows for, it is important to note that the notion of functional hierarchy goes beyond this by suggesting that leadership roles or functions can be carried out by entire collectives rather than specific individuals at specific times.

The crucial point to grasp in developing an anarchist cybernetics, and what marks it out as not only subscribing to a functional or logical hierarchy but to an explicit rejection or limiting of anatomical or structural hierarchy, is this: the different levels in the functional hierarchy all potentially involve the very same individual participants. As these are functions or roles as opposed to positions, by switching role depending on the activity at hand, individuals and entire groups can perform functionally hierarchical tasks while avoiding the institutionalisation of an anatomical hierarchy. This is, I would argue, the concrete promise of anarchist cybernetics and suggests how anarchist

organisation can be understood by going beyond (but still with) organisational cybernetics and Beer's VSM.

3.4 An Anarchist Viable System Model

Based on the re-articulation of what hierarchy might mean for an anarchist cybernetics, it is possible to begin sketching some of the organisational structures that contribute towards such an approach. In other words, what would an anarchist VSM look like? The picture I want to present briefly here is drawn from accounts of the organisational structure of the Occupy camps that took place in public squares across the world in 2011, most notably in New York's Zuccotti Park. Of course, each Occupy camp was different and the extent to which any of them reflected anarchist principles is debatable, but the intention here is not to argue that the Occupy camps were examples of anarchist cybernetic organisation but instead to take inspiration from some of their structures and practices and to take advantage of what now will no-doubt be a familiar (to scholars of organisation and radical left activists alike) language to describe a potential example of an anarchist VSM. In doing so, the account here is informed by descriptions of Occupy by authors such as David Graeber (2011; 2013), Marianne Maeckelbergh (2012; 2014) and Mark Bray (2013).

Starting at the bottom of the VSM, the System One operational units, those parts of the organisation that are tasked with the tactical work of the organisation and in terms of the Occupy camps were represented in the various working groups that existed. These were involved in the day-to-day running of the camps (cleaning, cooking, etc.) as well as planning protests and demonstrations, liaising with the press, organising the camps' own media and many other jobs. These were voluntary organisations and individual activists could be members of different working groups. System Two of the anarchist VSM would focus on the coordination between these different working groups and would include informal communication (activists chatting over lunch) or more formal communications, such as those that took place on social media platforms such as Facebook and Twitter but also activists-oriented platforms like N-1 (see Swann, 2014a). System Two, this should highlight, is not a structural part of the organisation of the camp but is a function of coordination between System One working groups.

As discussed above, the VSM is divided into two sections: the lower part that deals with autonomous coordination and the higher part that deals with framing this autonomous action within the whole system or organisation. The same is true of this anarchist VSM, with System Three being the first part of that higher section. Here, the higher section would be reflected in the General Assemblies that took place regularly in the Occupy camps. System Three involves members of the organisation reflecting on the activities of the working groups in relation to the overall strategy of the organisation. Members of the working groups consider their activities and adjust them if necessary in line with the decided-upon goals of the organisation. Crucially, for an anarchist cybernetics and VSM, everyone involved in the working groups can, potentially, be involved in the General Assemblies and so in these System Three discussions. The same individuals step out of their functional role as working group members and into that of reflecting on their practice within working groups. System Four involves the same individuals again, and also in the General Assemblies, reflecting on the activities of the working groups and the organisation as a whole as well as its overall strategy in relation to events in the outside world. Adjustments to both tactics and strategy can be made in light of changes in the environment that individual working groups might not be aware of but that collectively, those present at the General Assemblies can inform each other of. The final level of the model of Occupy I am presenting here is that which is concerned with the long-term goals of the organisation as a whole. This is again a level of discussion and decision-making that is, or should be, open to all in the organisation. It is where decisions are made about the objectives and priorities of the organisation and is ultimately what limits the autonomy of the working groups. This is not, however, a limitation coming from a distinct group of leaders but is something that is agreed upon democratically by all members of the organisation.

In terms of communication, I mentioned above the role that social media platforms as well as general assemblies and informal discussions can play in facilitating the exchange of information in such an organisational structure. In so far as such processes should mirror the participatory and democratic nature of anarchist organisation, it makes sense to look at forms of communication that move away from top-down command structures where orders are issued to subordinates and, as well, conspiratorial circles where information is contained within cliques and cells. Much of the hype

around the Occupy movement, and the other uprisings that occurred in 2011 and in the years immediately before and after, centred on the use of social media as a communication infrastructure. Paul Mason, for example, cites an Egyptian activist involved in the Arab Spring who commented that those protests were 'planned on Facebook, organized on Twitter and broadcast to the world via You Tube' (Mason, 2012, p. 14). The most optimistic accounts of social media (e.g. Castells, 2012; Juris, 2012) argued that the conversational, horizontal nature of communication on platforms like Facebook and Twitter made them well-suited to participatory and democratic forms of organisation like those characterised by the anarchist VSM. Others (e.g. Gerbaudo, 2012; Fuchs, 2014a) countered by highlighting the ways in which hierarchies emerge and can be maintained on social media platforms. In any case, the anarchist VSM makes clear that communication practices must be understood as integral parts of the overall organisational structure and should be judged based on the extent to which they facilitate the functions the VSM describes.

Rather than work as a plan of how organisations should be constructed, the VSM and the anarchist VSM need to be seen as tools that can help us analyse and understand what is going on when people organise, to help us see what functions exist where in an organisation and to identify why failures of communication and organisation occur. Beer described the VSM as a 'diagnostic tool' ([1981] 1994, p. 155) and Roger Harnden has similarly discussed its use as a 'hermeneutic enabler' (1989). In order to maintain the flexibility and autonomy of anarchist organisation, the VSM as a schematic itself could even come under review and be revised according to how it best fits the needs of those involved in the organisation. Either at the level of general assemblies or in individual System One working groups, the VSM could be used by activists to better understand their own organisation and to make it more effective and consistent with anarchist aims.
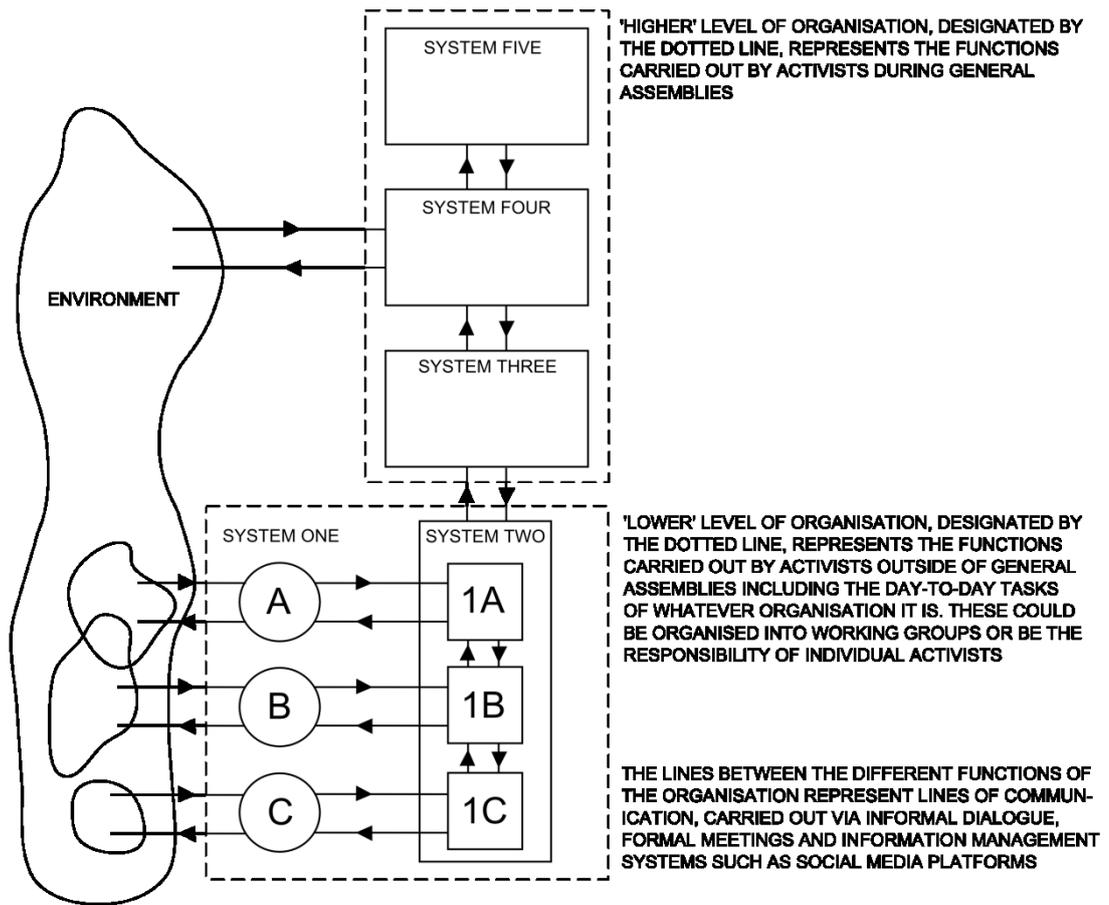
Figure 2: The anarchist cybernetic version of Beer's Viable System Model. (Based on Beer's depiction of the VSM in Brain of the Firm ([1981] 1994, p. 128)

This model of organisation mirrors that of anarchist federalism in so far as the top-down structure of traditional political organisation is replaced by a bottom-up approach in which those at the 'bottom' (again, functionally speaking) of the organisation are also in charge of decisions at the 'top'. Indeed, classical anarchist writer and activist Mikhail Bakunin, for example, writes the following of an anarchist vision of society (1971a: 270):

> The future social organisation should be carried out from the bottom up, by the free association or federation of workers, starting with the associations, then going on to the communes, the regions, the nations, and, finally, culminating in a great international and universal federation.

Elsewhere, Bakunin similarly argues that 'all organizations must proceed by way of federation from the base to the summit, from the commune to the coordinating association of the country or nation' (1971b: 82-83, italics in original). Here we have a picture of a federated form of organisation in which smaller local organisations, free associations or cooperatives, link up with one another at the level of the commune. Communes then link up in a regional council and so on to the level of an international council. This too is reflective of the recursivity that is essential to the VSM: any viable system is itself a part of another viable system and has within it multiple viable systems. Not only does the decision-making structure of an anarchist federation relate favourably to that of organisational cybernetics, but so too does the very principle of federated organisation, something Wiener in fact hints at (1961, p. 155) and of which Beer is sometimes quite explicit in his support (see Medina, 2011, pp. 159-160).

McEwan, in his *Anarchy* article, makes this link between this syndicalist model of organisation to cybernetics and an anarchist account of self-organisation and control ([1963] 1987, p. 52). The key feature of the model of organisation is that every unit at a particular level of organisation is free to act autonomously and shall not be coerced or manipulated into following commands from higher levels of organisation – Proudhon (1979), Kropotkin (1910) and others similarly highlight the necessity of autonomy and of federalism (see also, e.g. Ward, 2011; Prichard, 2007). Dolgoff, who as noted above was one of those anarchists who engaged with cybernetic thought, writes (1970) that

> [a]utonomy is impossible without decentralization, and decentralization is impossible without federalism. The increasing complexity of society is making anarchism MORE and NOT LESS relevant to modern life.

For Bakunin and other anarchists, the federation or, at the more local level, the cooperative or free association of individuals is in fact the very condition of autonomy. Higher levels may set overall strategies and plans for the federation, but the individual units are able to act autonomously within the scope of those plans. Crucially, for anarchist federalism, the plans at higher levels in federation are created via the participation of those at the lower levels. As Dolgoff continues (ibid.),

The self-governing associations will be flexible enough to adjust their differences, correct and learn from their mistakes, experiment with new, creative forms of social living and thereby achieve genuine harmony on a higher humanistic plane.

This is precisely the form of autonomy discussed above in relation to organisational cybernetics. An anarchist cybernetics can both be further expanded upon by the example of the anarchist federation and, through the work of McEwan and others, provide for a better understanding of the precise nature of hierarchy in such an anarchist form of organisation. While a structural hierarchy is rejected by both anarchist cybernetics and an anarchist federalist model of large-scale organisation, they both retain a functional hierarchy in terms of order of decision making, and have the potential to do so in a radically democratic way with every member of the organisation able to participate at (functionally) lower and higher levels. As discussed above, the essential distinction in the anarchist form of VSM here is that there is a hierarchy in terms of function or logic but not in terms of structure. Decisions are made democratically by all members of the organisation. Limits are imposed on their autonomy but these are limits that are agreed upon together.

Later in this thesis, in Chapter 7, I will describe this autonomy as *functional autonomy*, that is, as an autonomy that is defined within the functioning of the organisation. Importantly, this is not enough for an anarchist version of cybernetics. A more explicitly *ethical and political autonomy*, which values autonomy as an individual and collective good over-and-above its role within organisational structure, needs to be introduced. This brings into play a crucial distinction between the firm, as Beer conceives of it, and radical left and anarchist organisation. While the firm may be viable on cybernetic terms by including a *functional autonomy*, whereby individual operating units have some scope for self-organisation and independent decision making, it will be shown that radical left and anarchist organisation must combine this cybernetic demand with the ethical and political demand that values individual and collective autonomy in and of itself. The two sides of the anarchist coin, as I have described them above, must be brought together. For now it is enough to note that while Beer's work focusses on the firm and, one can argue, takes that as a model of social organisation in general, an anarchist cybernetics highlights a distinction that must be made between the firm, which takes as a necessary condition autonomy as a function, and radical left and anarchist

organisation, which takes as a necessary condition autonomy as a function and an ethical and political goal.

3.5 Conclusion

In this and the previous chapter, I have tried to provide an overview of Stafford Beer's organisational cybernetics, his Viable Systems Model, how key anarchist authors have engaged with cybernetics and, finally, what an anarchist cybernetics might look like. Anarchist cybernetics, as it has been presented here, as a proposal rather than as a concrete and already-existing position, is an attempt to understand some of the dynamics of control and communication at work in radical left social movement organisations. It operates not as a representation of the objective structures and practices in these groups but as a tool to better articulate what happens when radical activists organise in certain ways. The aim of the rest of this thesis is to elaborate on several elements of the anarchist VSM and to do so in a way that maintains the model as a useful framework for understanding but at the same time opens it up to alteration and modification. Crucially, what follows is not simply an academic exercise in further developing anarchist cybernetics but involves participatory co-research, carried out with a group of radical left activists, in order to identify in more detail how, along the lines suggested by anarchist cybernetics, radical social movement organisations operate and can be improved.

Split broadly along the control/communication distinction, which represent the two complementary sides of cybernetics, the thesis will first discuss the organisational structures of radical left groups and try to identify how an anarchist cybernetics can be fleshed out with detail that emerges from interviews with activists (Chapters 5, 6 and 7) before moving on to focus on the communication practices and information management systems that are or could be applied (Chapters 8, 9 and 10). This latter section will introduce the idea of alternative social media as those information management systems, which, alongside informal, face-to-face communication and traditional modes of publication such as newsletters, pamphlets and flyers, encourage both the autonomy and the cohesion that is of importance to radical left groups. Both politically and, from a cybernetics perspective, in terms of viability and effectiveness.

Chapter 4 : Research Ethics and Participatory Political Philosophy

4.1 Introduction

Developing an anarchist cybernetics has the potential to enrich understandings of organisation in radical social movements as well as the role and form of communication therein. The two questions I want to focus on in the rest of this thesis are based on Norbert Wiener's initial characterisation of cybernetics as the study of control and communication. In the second section of the thesis (Chapters 5, 6 and 7), I will take up the control aspect of this definition and ask the question:

> How might control, understood as self-organisation, be understood in line with anarchist concerns for autonomy and participatory democracy?

In the third section (Chapters 8, 9 and 10), I will turn to communication and ask:

> What conceptualisation of communication is appropriate in relation to anarchist accounts of self-organisation?

In building on the theoretical development of an anarchist cybernetics outlined in the previous chapters, I sought to engage in a participatory research project. This empirical element involved concern for how knowledge is produced in social sciences and humanities, how a research project sympathetic to anarchism ought to approach such a project and what kinds of specific research methods are appropriate. In this chapter, I will first discuss ontology and epistemology in relation to anarchist cybernetics before defining an anarchist research ethics. I will then turn to a discussion of doing political philosophy as a participatory endeavour and what methods of research and analysis this suggests. The empirical work carried out for this thesis involved conducting in-depth, semi-structured interviews with members of radical left and anarchist groups in the

Netherlands. This was approached as a mix of social scientific and philosophical research.

4.2 Cybernetics and Prefigurative Ontology

I want to start by returning to the distinction made briefly in the second chapter between first-order and second-order cybernetics. Wiener approached questions about our ability to access truth, the nature of world and the possibility of knowledge from a standpoint of an external reality that human beings can observe, measure and manipulate. In the 1960s, other cyberneticians, notably Heinz von Foerster and Margaret Mead, took a different path, in line with the contemporary emergence of social constructivist approaches to reality, and rejected a clean distinction between the observer and the thing observed. For von Foerster ([1979] 2003) and those who took inspiration from his insights, the observer is seen as part of the system being observed, with all knowledge taken as socially constructed. Truth is either rejected as an impossibility – we have no access to anything like an objective, external world and so cannot speak about it with certainty – or reframed as a pragmatic agreement between interested parties – truth as a convenient metaphor for what we agree upon as foundations of knowledge. It is in the tradition of second-order cybernetics that Stafford Beer is situated. For him, ideas like complexity, autonomy and self-organisation are constructions used to help us understand what happens when groups of people organise. They are conceptual tools that help us act.

Thinking about cybernetics and organisation along these lines, the work of science and technology studies scholar Andrew Pickering (2010) becomes extremely important. Rather than being focussed on representing an external reality with accuracy, Pickering's cybernetics is instead involved in performance. Performance is understood as the actions we undertake in the world that demand a pragmatic and constructed knowledge as opposed to a detailed representation of reality.[24] He describes this as a 'performative epistemology': 'a vision of knowledge as *part of* performance rather than

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[24] This owes something of a debt to the American Pragmatism of Pierce, Dewey and others, although this point is not laboured by cybernetics scholars. An anarchist engagement with a similar epistemological approach can be seen in the work of Sal Restivo (2011).

as an external control of it' (ibid., p. 25, italics in original). The cybernetician, therefore, is not engaged in unpacking and describing a reality (be it a machine, an animal, a human being or a social phenomenon) but in facilitating performances or practices that he or she is a part of. Cybernetics, in this regard, is committed to action and not simply theorising about the nature of knowledge. This is evident in the work of Beer who, as I have shown in the second chapter, was throughout his life heavily involved in practicing cybernetics. Pickering highlights the fact that the very definition of cybernetics as steering shows this connection with performance and practice (ibid., p. 30). It is a science not of representing the objective mechanisms of control and communication but of *doing* control and communication.

Interestingly, this turn towards science as performance in fact brings to the fore another connection between organisational cybernetics and anarchism. In recent years, various anarchist scholars have paid increasing attention to questions of ontology and epistemology and develop anarchist positions on these topics in much the same way as Pickering does that of cybernetics, with a sensibility informed by poststructuralism, postmodernism and social constructivism (e.g. Koch, 1993; May, 1994; Newman, 2001; Rousselle, 2012).[25] But more importantly, anarchism, both in theory and in practice, has developed a focus on prefiguration and a politics of creating alternatives and acting in the world.

I outlined prefiguration in the introduction to this thesis and it will feature heavily in Chapter 6 and to a lesser extent throughout so I will not go into any great detail again here. What is important at this stage is how prefiguration, which has become a core concept for radical left and anarchist theory (e.g. Maeckelbergh, 2009; Franks, 2003), has been characterised as a political ontology (van de Sande, 2015), one that moves in a similar direction as Pickering's cybernetic 'ontology of becoming'. The politics of anarchism, and indeed increasingly of the radical left more generally, is focussed not on postponing goals to a time in the future, after winning power or seeing through a revolution. Rather, radical change and alternative forms of society are enacted in the

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[25] This is a view on anarchism and science that stands at odds with those of scholars such as Michael Schmidt and Lucien van der Walt who link anarchism, specifically the classical anarchism of Bakunin and Kropotkin, to positivism and rationality (2009, p. 69).

present. In this sense, prefiguration is also focused on *becoming*, on the active performance of radical goals. Part of the point of prefiguration is to live 'as if one is already free', to perform, in a sense, the freedom and mutual-aid that is otherwise denied. While the academic and activist literature on prefiguration does not look in detail at knowledge production as part of this performance, movements seen to be involve in prefigurative politics (e.g. the Zapatistas as well as the uprisings of 2011 and later) all saw a role for education and co-creation of knowledge within radical practices. As Autonomist Marxists Michael Hardt and Antonio Negri put it (2012, p. 39), '[i]n the occupied squares of 2011, from Tahrir to Puerta del Sol to Zuccotti Park new truths were produced through discussion, conflict, and consensus in assemblies.' The political ontology of prefiguration, along with the ontology of becoming of which Pickering speaks, points towards a form of democratic co-creation of knowledge in line with the ethics and politics of anarchism.

4.3 Anarchist Cybernetics and Research Ethics

Whether defined as Pickering's ontology of becoming, the Zapatistas' idea of walking while asking questions or the political ontology of prefiguration common to anarchism, knowledge, along these lines, is defined as part and parcel of a radical politics. Briefly, I want to examine what this commitment to prefiguration, a cybernetic ontology of becoming and an anarchist approach to social science and philosophy means for research ethics.

Research ethics is commonly defined in terms of avoiding harm when conducting research. The British Sociological Association (BSA, 2002, §§6, 13 and 26; this is echoed in, for example, the University of Leicester's *Research Ethics Code of Practice*, 2014; see also Israel and Hay, 2006; Israel, 2015) sets out the ethical commitments of the researcher as 'safeguard[ing] the proper interests of those involved in or affected by their work'; 'ensur[ing] that the physical, social and psychological well-being of research participants is not adversely affected by the research'; and 'attempt[ing] to anticipate, and to guard against, consequences for research participants that can be predicted to be harmful'.

This focus on harm has come in for criticism with some arguing that it promotes a 'hurdle' approach to research ethics (Brewis and Wray-Bliss, 2008). While wanting to avoid harm is undoubtedly an admirable ethical goal (although it does raise the question of to whom harm might be being caused and whether causing harm to some might be justified in seeking to lessen or avoid harm to others) it lacks the positive ethics that goes with a prefigurative approach to research. Merely avoiding harm has too little in substance to sufficiently ground an approach that situates research within political movements that seek to effect radical change.

One of the most sophisticated definitions of an ethics of prefiguration can be found in the work of philosopher and anarchist studies scholar Benjamin Franks and his notion of a practical anarchism. Following Alisdair MacIntyre's practice-based virtue ethics (2006), Franks links prefiguration and anarchism to the idea of virtue such that people should act according to a virtuous anarchist character.[26] Virtue ethics lends itself to a prefigurative politics, Franks argues, in so far as the successful realisation of the ethical ideals or ends embodied in specific virtues are not postponed to future consequences of action but are realised in the actions themselves. Likewise, the actions themselves, the means, are not valued independent of consequences or ends but precisely because they realise those ends in their being enacted. Means and ends, considered as separable in other dominant ethical frameworks (Franks, 2008), are in virtue ethics and prefiguration alike realised in a single moment and action. The virtuous behaviour enacted by the researcher must be more attentive to creating social and political change (Franks, 2010). Crucially, pointing this towards research ethics, the change the researcher wants to see in the world should be embodied in the practice of his or her research. Indeed, one of the simplest declarations of prefiguration is Gandhi's demand that one should be the change one wants to see. This ought to apply to research as much as it does anything

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[26] Virtue ethics is derived from Aristotle (in his Nicomachean Ethics) who argued that morally good behaviour comes down to individuals enacting certain virtuous characteristics. He provides a list of virtues considered as universal markers of good character. MacIntyre challenges the universalism of Aristotle's virtue ethics and instead proposes that different lists of virtues are appropriate in different communities at different times. Franks' work builds on this by suggesting a shifting and negotiable list of virtues specific to anarchist social practices. Thus, this avoids the problems that positivist approaches face in that they prioritise one dubious ethical truth-proposition over others without much epistemological justification (Franks, 2008; Mackie, 1977, p. 30-42).

else, and it is on this basis that a prefigurative anarchist research ethics can be elaborated.

It is according to a certain list of anarchist virtues (which, Franks makes clear, are not strictly defined but can change depending on context) that an anarchist research ethics can be defined. Sadly there has not been much written on a specifically anarchist research ethics. Two notable exceptions are found in the work of Jamie Heckert and David Graeber. For Heckert, this comes in the form of thinking about conducting research on queer identity (2010); for Graeber, in the course of defining his anarchist anthropology (2004). Both see research as a form of activism as well as an academic inquiry and so are important precursors to the approach outlined here. Heckert, who sees queer and anarchism as synonymous in that they both aim to deconstruct imposed borders and hierarchies (2010, p. 42), writes of how research can be used as a method for creating the possibility of alternative social and political relationships (ibid., p. 52):

> How might the always already embodied, emotional and relational practices of research involve practices of the self, or a care of selves, that allows possibilities unimaginable before? How might research create space for becoming-queer? Though the summoning forth of a new earth was ambitious for a Ph.D. project, I aimed to make a modest contribution.

This echoes Graeber's approach to being a radical intellectual. He argues (2004, p. 12) that one should

> look at those who are creating viable alternatives, try to figure out what might be larger implications of what they are (already) doing, and then offer those ideas back, not as prescriptions, but as contributions, possibilities – as gifts.

But what then of the specific virtues of an anarchist research ethics? Graeber writes of the 'enormous emphasis on mutual respect, cooperation, and egalitarian decision-making [… and] the dissemination of a certain vision of democratic possibility' (2009, p. 12). Heckert, similarly, highlights the goals of anarchism as

> not only a refusal to grant legitimacy to borders, whether those of classes, nations or sexualities, but also as ways of becoming, of learning to experience the unreality of borders, to know that they have no independent existence.

He also speaks of the importance of 'radical transformation and listening' (2010, pp. 42-43). While many more could be added, these seven goals (mutual respect, cooperation, egalitarian decision-making, promotion of radical democratic vision, deconstruction of borders, radical transformation and listening) will serve to demonstrate how a virtuous anarchist mode of research can be conceived. In order to act virtuously as an anarchist, a researcher must act so as to embody these goals. The researcher should aim to: (1) be respectful of participants in research; (2) encourage cooperation in the research on the part of the participants; (3) engage in egalitarian relationships with the participants; (4) promote the radical democratic ideal of anarchism; (5) conduct the research in a borderless fashion; (6) be radically transformative (i.e. live as radically transformed); and (7) listen to participants. It should be noted that according to the prefigurative virtue ethics outlined by Franks, these virtues and goals are negotiable and specific to particular contexts and practices, rather than universal truths.

While it is not the focus of cybernetics, such an ethical approach can also be seen in the work of von Foerster. In line with the second-order cybernetic concern for the researcher as 'a person who considers oneself to be a participant actor in the drama of mutual interaction of the give and take in the circularity of human relations' ([1991] 2003, p. 289), von Foerster frames ethics as an understanding of the norms that govern the practices we engage in. Rather than seeing scientific research as a practice involving truth, von Foerster recasts it as involving trust, understanding, responsibility, reaching out for the other and 'a conspiracy, whose customs, rules, and regulations we are now inventing' (ibid., p. 294).[27] On this understanding, an ethics of research is fundamentally an ethics of co-producing knowledge and von Foerster's account of second-order cybernetics links up well with the anarchist research ethics defined by Heckert, Graeber and others.

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[27] Von Foerster articulates this approach with reference to Ludwig Wittgenstein's concept of language games. The connection between language games and prefigurative anarchist virtue ethics has been elaborated elsewhere (Swann, 2010). Von Foerster was in fact a member of Wittgenstein's extended family (McEwen, 2005).

4.3.1 Practical Concerns

Of course, in addition to this general cybernetic approach to research and anarchist approach to research ethics, there are also more practical concerns that need to be taken into consideration. First, there is the concern that sociological research on the anarchist movement may put certain members of that movement at risk because they singled out and named as being involved in organising or taking part in activities which would make them a target for the police and security services as well as for far-right extremists. Thus, in aiming to further the goals of the movement, anarchist researchers ought to protect the anonymity of other participants in the research where appropriate. Graeber presents his solution to this problem as follows (2009, pp. 12-13):

> On really sensitive issues (as opposed to silly fantasies) I would not quote anything that had not already been said in some kind of public forum. […] When dealing with things said in public forums that had any bearing on actions, I would avoid using actual names.

As I will discuss below, the specific empirical method I adopted was that of interviews with key activists in the Dutch radical left scene. The right to anonymity was something I negotiated with interviewees prior to starting the recording of the interviews. Some were happy for their real names to be used while others used pseudonyms. I decided to replace all names with pseudonyms to protect anonymity (see Appendix One for an overview of the research participants).

The second concern that is relevant to anarchist research and to my own research in particular is that engaging in research which is aimed at furthering the goals of the anarchist movement, the researcher and participants are simultaneously providing those who wish to hinder and frustrate the movement with invaluable information about how practices are organised. Franks (1992) warns that 'the social sciences are the third section of the intelligence gathering services. […] The state's liberal surveillance wing, sociology, informs on what working class people are thinking and doing.' He goes on to say that sociologists aim to show 'when working class people's actions and attitudes are showing signs of becoming a threat to the stability of [the ruling] class's dominant position.' This is a rather dramatic and perhaps unfair characterisation, but in general concerns related to research as surveillance are warranted. There is a serious risk

associated with anarchist research that detailed information about successful anarchist organising would be at the same time a guide to countering such organising. This is perhaps especially true in the case of the research carried out here as this could provide detailed information on the organisational dynamics of radical left groups and their communication practices, and would allow security services to disrupt organisation and communications at key points. In writing this thesis, care has therefore been taken to reduce the risk of it being useful to those wishing to disrupt the movement. I have allowed activists to review the transcripts of their interviews and highlight any details that they would prefer to not be included or that they would prefer not attributed to them.

This anarchist, prefigurative research ethics has much in common with ethics of care in science and technology studies suggested by Maria Puig de la Bellacasa (2011). Puig de la Bellacasa, following feminist scholars such as Vinciane Despret, Susan Leigh Star and Hilary Rose, argues for an approach to the world and to research that is similarly focussed on an active doing in the world. In terms of concrete research ethics, care means (ibid., pp. 94-95)

> counting in participants and issues who have not managed or are unlikely to succeed in articulating their concerns, or whose modes of articulation indicate a politics that is "imperceptible" within prevalent ways of understanding.

Importantly, bringing care into an anarchist research ethics suggests not only an additional virtue connected to listening and respect but also a crucial element of prefiguration, namely, that any list of virtues is negotiable. 'In that sense', Puig de la Bellacasa writes (ibid., p. 96)

> standpoints are not fixed, as they depend on material configurations *and* on our participation in (re)making them. A feminist ethos of representing care is not reduced to the application of an established theory but it has to be constantly rethought, contested and enriched.

Additionally, this points towards the sense of experimentation that is part of prefigurative politics (van de Sande, 2013).

There have in recent years been several attempts at defining the contours of an anarchist sociology or anthropology. Luis A. Frenandez, for example, argues (2009, p. 94) for a 'research method based on direct experience, grounded in activism, and informed by an anarchist sensibility.' Importantly, Fernandez touches on the role of *reflexivity* in anarchist research, writing that it is crucial for the researcher to recognise the role they play in producing and not just representing knowledge (ibid., p. 99):

> in saying something about the people you study, you are also saying equally as much about yourself, since all of your passions, thoughts, and feelings inform your curiosity and the selection of what you study.

Jonathan Purkis also brings into play a discussion of the means and ends of research (2004, p. 47): 'what gets studied, who funds it, who benefits from it? And, above all, how is it carried out, and by whom?' He draws on feminist, ecological and post-colonial sociology in questioning the authority of certain dominant perspectives and points towards an understanding of fieldwork 'as though it is a collaborative and mutually beneficial experience, for those being studied as well as the researchers' (ibid., p. 53). Heckert's and Graeber's work leads in a similar direction in this regard.

4.4 Participatory Political Philosophy

Anarchist research, I have suggested above, ought to be prefigurative: it needs to be firmly located within a practice of realising anarchist goals in the here and now; it needs to be a part of processes that aim to, as the Industrial Workers of the World slogan goes, build a new world in the shell of the old. As Purkis puts it (2004, p. 53), recent shifts in sociology towards this kind of thinking 'have tended to treat fieldwork as though it is a collaborative and mutually beneficial experience, for those being studied as well as the researchers.' This links up with partisan approaches to social research (Brooke and Darlington, 2013) that view research as an activity that is part of radical social movements. Importantly, it has its roots in the development of radical feminist sociology (Delamont, 2003). The work I want to do in this thesis is, however, not strictly speaking sociological. While I have used in-depth, semi-structured and open-ended interviews with radical left activists, I have not done so in a way that is easily identifiable as sociological empirical work. Indeed, given my background in philosophy

and the core aim of this thesis to develop and discuss anarchist cybernetics as a conceptual understanding of radical social movement organisation, albeit one that is inseparable from practice, a different approach to research is called for.

Uri Gordon has proposed an empirical research-focused and prefigurative method of doing not sociology but political philosophy (Gordon, 2007, p. 278):

> The role of the philosopher is to partake in and facilitate the reflexive process of theorising among activists, functioning as a clarifier, organiser, and articulator of ideas, an activity that takes place with and for activists. Her or his goal is to address in theoretical form the issues that activists face in their everyday organising, to assemble ideas so they can be discussed carefully, to lay open hidden assumptions and contradictory statements, and in general to advance activists' thinking by transposing it from the fragmented terrain of brief and informal debate to a dimension where a more structured and "high-definition" discussion can be undertaken: on the written page.

It is this very project that I aim to carry out in this thesis and that has guided my fieldwork, the interviews with radical left activists. It was not an attempt to generate a grounded theory or to present a depiction either of material reality or of discourses. Rather, the aim was to have conversations with activists that would encourage theoretical and practical reflection on the nature of anarchist and radical left organisation and the relationship between these forms of organisation and communication practices. And this was done with a view to prefiguration, to realising some of the goals of anarchist and radical left social movements. Indeed, as Gordon writes, 'the goal (of such an approach to political philosophy) is to underpin various forms of grassroots action' (ibid., p. 278).

In this way, this thesis can be understood alongside similar recent contributions to anarchist political philosophy that have come from activist academics and intellectuals who, while perhaps not defining their projects in the way Gordon does, draw on their experiences with anarchist politics in their philosophical reflections (e.g. Franks, 2006; Gelderloos, 2007; Ramnath, 2011; Daring et al., 2012; van de Sande, 2013; Dixon, 2014; Wilson, 2014). As anarchist studies scholar and philosopher Nathan Jun notes, anarchist philosophy has always been 'authored with a mind toward drawing rooms *and* barricades, classrooms *and* streets' and reflects a meeting of scholarship and activism

(2009: 516). So as well as taking inspiration from anarchist researchers working in the social sciences, this draws too on those anarchist researchers working in the humanities and in political philosophy specifically. One of the most focussed research projects that works along these lines is that carried out between 1995 and 2010 by the Collectif de recherche sur l'autonomie collective (CRAC) based in Montreal, Canada (see e.g. Jeppesen et al. 2014a). CRAC, who describe their research as pro-feminist, prefigurative and non-hierarchical (ibid., p. 880), worked with several anarchist groups in Montreal and outline their methods as follows (Collectif de recherche sur l'autonomie collective (CRAC), n.d.):

> Using a research-action methodology, we are working to produce a series of publications or texts that reflects on the interests and preoccupations of these groups and networks. These texts therefore both reflect the issues that these groups and networks wish to put forward within their/our milieus, and simultaneously enter into a dialogical process of research that will ultimately bring about some kind of transformation. We are particularly interested in the many challenges, contradictions and issues that have been encountered by activists in their collective actions and organizing work, such as the relations of domination or power that develop among people or groups which might be linked to a range of diverse social identities, categories and experiences.

This, therefore, is a clear example of the kind of participatory political philosophy (and sociology) Gordon outlines and runs along similar lines to the project I will describe below.

The reflections on anarchist cybernetics and the way it is used to promote debate on areas that are central to contemporary, radical left social movement organisation are, therefore, best taken as attempts to: (1) develop an understanding of anarchist organisation through a cybernetic lens; (2) examine critically some of the key ideas and practices (as suggested by anarchist cybernetics) of anarchist organisation; and (3) to provide a potential resource for further critical debate on the part of activists (as well as of course contributing to philosophical and social scientific debates on social movements, anarchism, cybernetics and social media).

There is, however, a clear gap between my engagement with the activists I interviewed, at least in terms of my role as a researcher, and the results of that engagement being fed

back into the activist milieu. It is a gap constituted by philosophical meditation and writing. Ultimately, one core aim of this overall project (in addition to that of providing a sound and valid philosophical and social scientific reflection) is indeed to return to these activists and take the discussion further by looking again at the ideas and practices of their activism and determining whether an anarchist cybernetics, as I will outline it here or in some other form, can be useful in further realising the goals of their and my movement. Furthermore, the participants, the activists I interviewed, are therefore not subjects or sources of data but co-producers of philosophical debate and reflection. As Gordon puts it (2007, p. 282)

> [t]he role of the activist/philosopher is not simply that of an expert observer but primarily one of an enabler or facilitator, and the role of the participants is that of co-philosophers and co-activists.

4.5 Participatory Action Research

The concrete research method Gordon suggests for this kind of political philosophy is Participatory Action Research (PAR). He cites Peter Reason and Hillary Bradbury's definition of PAR as 'a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes' (2001, p. 1, cited in Gordon 2007, p. 283; see also Berg, 2004). The point of PAR is to use empirical research methods and philosophical reflection to further the aims of social movements and to do so in the spirit of participation and democracy. Chris Land and Daniel King, who have applied PAR in the context of research on the anarchist influences on voluntary sector organisation, describe their aims as to 'collaborate with organizational members' and 'work in ways that would be useful to the organization and not only to [their] academic careers' (2014, p. 930). PAR has much in common with prefiguration and other radical left-wing approaches to producing knowledge as a part of social movement strategies, such as the Militant Investigation founded in Italian factories in the 1950s and 60s by Autonomist Marxist theorists and activists. In both cases research is 'irreducibly one-sided and partisan' (Conti et al., 2007, p. 80). Clem Adelman, for example, (1993, p. 8) describes PAR as a process that 'gives credence to the development of the powers of collective thought, discussion, decision and action by ordinary people participating in collective research.' It has a history that dates back to

Kurt Lewin's coining of the term in the 1930s and was deployed within the context of emancipatory struggles in Latin America (Freire, 1972).

As well as this connection to the kind of participatory political philosophy and prefigurative research I wanted to include in the course of completing this thesis, PAR also has strong connections to cybernetics. Lewin, who in many ways founded PAR, attended the first Macy Conference in 1946 that acted as the forum in which cybernetics was first discussed. Project Cybersyn, the work Stafford Beer and others carried out in Salvador Allende's Chile, can be seen as a PAR project, with those in factories and other parts of the Chilean economy contributing towards the development of the models and techniques that would allow the economy and, ultimately had there been the opportunity, the country to be run democratically in a participatory way. Those influenced by cybernetics, such as Peter Checkland (e.g. 2010), whom I mentioned in Chapter 2 in relation to information management systems, have similarly sought to engage in PAR projects with members of organisations. In somewhat less radical terms than those used by anarchist researchers and political philosophers (indeed PAR is not always applied in pursuit of radically-emancipatory ends), Robert Flood (2010, p. 277) describes the kind of projects associated with PAR as follows:

> an "authentic" understanding of any action context requires participation of all stakeholders, that is, all people involved in taking action as well as people affected by those actions. This may be achieved only if people enter into an action context as both an actor and a researcher. Participation of stakeholders is a pillarstone of […] action research.

While using a different rhetoric, this is reflected in Gordon's description (2007, p. 283) of 'the emancipatory potential of the collective generation of knowledge that legitimate and valorise a socially committed orientation in intellectual endeavours'.

4.5.1 Putting Participatory Research into Practice

It was with this approach in mind that I began planning for the empirical research element of my PhD research in the autumn of 2012. I had chosen the focus of this empirical work as the Netherlands based on the fact that I had some level of access there due to my involvement in activism there and, for the same reason, that it was the

context in which my ideas about anarchist organisation were formed between 2008 and 2011. My initial idea was to focus on one radical left activist group in particular, working with members of that group[28] to develop and implement a campaign based on the core ideas of the anarchist cybernetics I was developing and the potential of social media as an information management system. I intended to organise a series of participatory workshops that would focus on planning a campaign or integrating social media into an existing campaign. On top of this, I would carry out in-depth, semi-structured and open-ended interviews with the activists involved and during the whole process compile notes on my own experiences and reflections, bringing an element of ethnography and participant observation to the project. This hit a major hurdle very early on when the responses from the group were both fewer and far less positive than I had expected. In fact no one was enthusiastic about the project and many comments focussed on rejections of social media as a tool for activism and not at all on the proposed participatory education workshops or other aspects of the plan, effectively scuppering the PAR project before it had even left port.

Without wanting to speculate as to the reasons for this, it is important to note how this might relate to the idea of access in radical left and anarchist research and how this plays an important role in the possibility of carrying out these kinds of research projects. One possible reason that my attempt at instigating a PAR project failed is that I lacked the access, and perhaps even the influence, in the group in question to elicit cooperation. Many of the examples of sociological research and philosophical reflection conducted in a radical left activist environment, such as Graeber's *Direct Action* (2009) and *The Democracy Project* (2013) or Maeckelbergh's *The Will of the Many* (2009), come from people who, on the face of it at least, are at the very centre of the movements they write about. But of course there are those of us who, for whatever reason, cannot or choose not to be at the centre of the social movements and organisations we consider ourselves to be activists in. We may be involved in important ways and in the sense that these movements and organisations are radically democratic we have an equal say in how they are run. But ultimately we lack the 'social capital'[29], for want of a better word, to

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[28] I was also a member of the group in question.
[29] I use 'social capital' here in the colloquial sense of access to certain groups and/or situations.

propose things like PAR projects and participatory education workshops. Our suggestions fall largely on deaf ears.[30]

Ultimately, this comes down to the question of access that is central to sociological research but which is to a certain extent glossed over in anarchist research strategies such as Gordon's participatory political philosophy. This is conspicuous in its absence from many of the sources on anarchist research I have consulted (e.g. Purkis, 2004; Fernandez, 2009). Gordon calls for the anarchist philosopher to be immersed in the anarchist movement such that 'the philosopher continuously participates in actions, meetings, and discussions, closely following the process of political articulation' (2007, p. 281). In terms of how PAR is supposed to work this is admirable, but the realities of both activism (some of us simply are not and cannot be immersed for various reasons) and academic research (universities increasingly demanding contact time in the form of taught modules for PhD students, teaching and myriad training sessions and progress reviews) do make it problematic. Maeckelbergh, while not focussing on anarchism specifically but on the alterglobalisation movement more generally, similarly presents access as something natural and emphatically unproblematic, perhaps owing to her sometimes role as meeting facilitator and trainer (as well as warehouse cleaner and medic) and the time she was able to spend 'completely immersed, working and living with activists 24 hours a day' (2009, p. 22). She also highlights the importance of 'after-office chats at home or in the pub, and going out for dinner or going on short excursions together' (ibid., p. 23) in building the 'strong bonds' that are essential to this kind of highly engaged activist research. But again participation in the social life that comes with immersion in activism is something denied to many activists either because of a lack of social capital or due to social anxieties that preclude involvement in such group events, something particularly pertinent in my own case. For those of us on the periphery of social movement activism, who lack the social capital that comes from being immersed and for whom such immersion simply is not viable, what options exist in the pursuit of participatory political philosophy?

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[30] This of course suggests a problem with the functional account of hierarchy I provided in the previous chapter and points towards one of the ways in which functional hierarchy can turn into an implicit structural hierarchy of opportunity where some members of groups are able to accumulate the social capital necessary to suggest courses of action.

4.6 Interviews and Participatory Political Philosophy

Finding myself in this position, of having designed and partly prepared a PAR project only to realise the impossibility thereof, I had to rethink my research methods and arrive at an alternative method of doing participatory political philosophy. This had to be practical in terms of the level of access that was afforded to me. While it was clear that I was not able to initiate a PAR project of the type I had planned, I did have a number of very close friends in the radical left scene in the Netherlands. Just because I wasn't part of any close-knit affinity groups, that didn't mean that I lacked affinities with other activists. I decided to focus on interviews, of the in-depth, semi-structured and open-ended kind that I had included in my initial PAR plan, but instead of homing in on one radical left group I expanded the scope of the empirical research to include as many of the groups on the radical left in the Netherlands as I could gain access to.

I began with the close contacts I already had from my time living in a radical left social centre (where I continued to live during my return visits to conduct the interviews), treating them as key informants given their experiences as members of several radical left groups. From there, through these interviewees I was put in touch with further contacts in other groups, and thus the sample I had access to 'snowballed' (e.g. Biernacki and Waldorf, 2981; Browne, 2005). I also tried 'cold' contacting a number of groups to arrange interviews but I realised early on that the success rate of this approach would be very low and so focussed my energies on an expanding list of contacts that began with the close activist friends I already had. The fact that I was put in touch with activists via other activists and so could name-drop gave me some social capital that, I believe, made those activists I was not already in contact with more willing to talk than they might have otherwise been. I ended up, between February and September 2012, interviewing eighteen activists from thirteen different radical left groups (see Appendix One). Of these eighteen, six were close friends with another five being acquaintances. Six of the remaining seven I came into contact with via the interviewees I was already close friends with. One interview was contacted 'cold' and as he was used to speaking with journalists at that time was open to being interviewed.

The sampling method I used here is clearly worlds apart from some of the sampling methods common to quantitative social sciences research (e.g. Gorard, 2003). The aim was not to produce a representative picture of the radical left movement in the Netherlands but instead to facilitate conversations with key informants. The approach I took was, therefore, a form of judgement sampling, with an added element of snowball sampling (Marshall, 1996, p. 523).

This interview-based approach to participatory political philosophy, while departing somewhat from the approaches of Graeber, Maeckelbergh and others who favour ethnography and participant observation, is not entirely absent from anarchist sociological research. The focus on in-depth, semi-structured and open-ended interviews mirrors that of Heckert, whose research similarly uses interviews and a key informant sampling procedure (2005; 2010). Although he does not define his project as participatory political philosophy, the role he puts himself in, that of story gatherer or storyteller rather than social scientist (2005, p. 103), runs parallel to the role of the political philosopher who draws on the experiences of participants rather than abstract debate and reasoning.

The interviews I have carried out with radical left activists are therefore characterised as in-depth, semi-structured and open-ended (e.g. Bryman, 2012, chapter 20; Saunders, Lewis and Thornhill, 2009, pp. 318-359; see also Silverman, 2001) in the sense that they aim to foster rich discussion of key philosophical themes connected to the practice of radical left activism and the anarchist cybernetic model of organisation defined in the previous chapter. While I went into the initial interviews with a list of topics and questions (see Appendix Two) this formed only a basic structure and in general the back and forth between the interviews and myself was unstructured and improvised, as conversations are. While some of my questions were determined in advance, others depended on statements made by the interviewees and areas of interest that I had not expected to come up in the interviews. The most structured of the interviews were the two that were carried out by email (on the practice of email interviews see, e.g. Burns, 2010; Gibson, 2010; McAuliffe, 2003; McCoyd and Kerson, 2006; Meho, 2006). These went through two rounds of questions and answers, with the second-round questions depending on the interviewees' answers. While this format was useful in so far as the interviewees had more time to formulate their contributions to the discussion, it did lack

the spontaneity and improvisation of the conversational style of the other interviews. This is not, however, to say that the email interviews did not result in interesting and important contributions to the philosophical debate around the key issues. They certainly did. But in general they were less of the ideal kind of interview suited to participatory political philosophy.

As Heckert highlights (2005, pp. 97-100), participants feeling comfortable in the interview context, and indeed in the research context more generally, is vital to an anarchist approach to sociological research. In this regard, anarchist research links up with the prefigurative research ethics discussed above. Heckert talks about this in terms of the notion of 'non-violent listening' coined by Pierre Bourdieu (1999, pp. 608-609). Respecting the anonymity of participants and allowing them to co-lead the conversations, rather than me repeatedly pushing certain questions, were how this came through in the interview practice. There were only two occasions where, as far as I was aware, the activists I spoke to felt uncomfortable during the interviews or expressed some other opposition to what I was doing. In one case, an activist made clear that she felt uncomfortable with my phone, which I was using to record the interviews, being between us during the conversation. I offered to turn the recorder app off and put the phone away but she said that this was not necessary and I did not feel that it influenced the interview as it progressed after this. In one other instance, an interviewee spoke disparagingly of academic research and of university-based researchers drawing on social movement activism to advance their careers. As in the previous case, however, this was at the start of the interview and I felt confident that it did not act as a barrier to us having an open conversation.[31] These issues of care, respect and listening, as well as being central to anarchist research, are among those commonly discussed in relation to interview practice and the obstacles to an adequate interview setting (Roulston, deMarrais and Lewis, 2003).

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[31] John Crossan (2010), who carried out ethnographic research in a site closely connected to some of the radical left activists I spoke to, eschewed the use of interviews because of such barriers. I am of a different opinion and my use of interviews hopefully bears this out (see also, e.g. Bryman, 2012, pp. 493-497).

4.6.1 Analysing Participatory Interviews

Looking at the list of anarchist research virtues proposed above as a broad guide to engaging in the kind of research I have described here (rather than as a fixed set of rules), more than anything else it promotes a respect for participants and an active listening to them. In terms of analysis, this points in the direction not of an attempt to extract valuable data from transcripts or to quantify data but to engage in a conversation with participants. The analysis of the discussions I had with radical left and anarchist activists is, therefore, my side of the conversation. It is my attempt at reflecting on what the participants had to say and offering a theoretical contribution in return.

The analysis that forms the basis of the following chapters in this thesis is, in line with participatory political philosophy, an attempt to generate philosophical reflections on the discussions I had with activists. It takes the interviews, in the form of transcripts, as reflections in their own rights and engages in a discussion with the activists on the written page. Gordon (2007, p. 278) highlights this as one of the key elements of a participatory, anarchist approach to doing political philosophy. It takes the discussions that have been had with activists, identifies key themes and points of interest that have emerged in these discussions and brings them into conversation with academic and activist theory and the philosophical work done by the activist researcher. Again this ties in with Heckert's research practice and of the idea of research as providing gifts as part of a prefigurative politics (2005, p. 101; see also Graeber, 2004, p. 12). Analysis is not about extracting and demonstrating the truth of any material or even discursive realities; nor is it even focussed on representing the truth of individual experiences. The scientific endeavour here is to co-produce (philosophical) knowledge that can contribute to the realisation of the goals of anarchist practice and that is itself a realisation of those very goals. The analysis aims to continue the conversational, participatory tone of the interviews.

In carrying out this mode of analysis I have not systematically drawn on any explicit analytic strategies of the kind that are common in qualitative research. The process has something in common with what Anselm Strauss and Juliet Corbin term 'systematic comparison', which aims to compare 'an incident in the data to one recalled from

experience or from the literature' (1998, p. 95). But it cannot be said to fit neatly within a Grounded Theory approach in that the aim is not to develop a theory from empirical data but to engage in philosophical reflection in co-operation with research participants. The interview transcripts are not treated as data but as philosophical texts in themselves and in many ways the analysis presented here works as any philosophical discussion would, treating comments from interviewees as aspects of the philosophical literature. It may be inductive or abductive in the sense that it starts from the data and works from there to identify concepts, but not in the sense that a theory is being developed to account for the data. Perhaps the best way to characterise the analysis done here is as the informal approach described very briefly by Anssi Peräkylä and Johanna Ruusuvuori (2011, p. 530) and exemplified by Clive Seale's case study of an interview with British playwright Denis Potter (1998, p. 127-131). I have found little guidance on such an informal method in the research methods literature and neither Peräkylä and Ruusuvuori nor Seale elaborate. To this extent, therefore, the analysis carried out here is experimental.

The analytic method followed a similar pattern for each of the following chapters. I had transcribed the interviews myself using the Listen N Write software[32] and conducted an initial coding using NVivo. This coding was based on both predefined nodes coming from the discussion of anarchist cybernetics included in the previous two chapters and free nodes (Basit, 2003) emerging from the transcripts themselves (see Appendix Three for a list of the nodes used). This initial coding (which took the form of printed transcripts complete with text highlighted and coded through Nvivo) was used to provide a general overview of the core concerns of participants and of the broad themes that had emerged from the research. It also allowed me to construct the basic structure of the thesis in terms of chapters. When coming to write each chapter, I read through the transcripts again, noting down the codes and segments that were of specific importance to that discussion. This involved highlighting the printed transcripts with highlighter pens and writing on the page coding nodes relevant to that chapter; these may have been included in the initial coding phase or may have emerged in my second-reading of the transcripts. In addition to the predefined nodes and those emerging from the transcripts, what was identified as of importance were also those sections of the conversations I had

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[32] Which is available online for free: listen-n-write.en.softonic.com

had with activists that were of particular relevance to the content of the chapter in question. As the thesis progressed and I moved from one chapter to the next, returning to the transcripts and in a sense re-coding or over-coding them led to new areas of focus and themes emerged that I had not initially coded for. Through this the focus of the conversation between me and the transcripts developed as time went on and the iterative process of re-reading the transcripts meant that the discussions in each chapter could not, at least in terms of the specific details, have been predicted in advance. In this sense, the writing, chapter-specific reading and analysis were all part of the same process and did not form discrete stages. The work on the thesis up to a certain point determined the re-reading and re-coding of the transcripts, which in turn determined the focus of the chapter-specific literature. This came together in the final written work.

The philosophical work that characterises the following chapters is difficult to pin down and attribute to an explicit method. Rather than the classical Socratic method of interrogating concepts for logical consistency and contradiction, the work of the subsequent chapters involves identifying the connotations of concepts and how they link with other concepts. In this sense it mirrors Gordon's approach to the philosophical work of his participatory political philosophy discussed above. The empirical work feeds into this process by providing many of the concepts that will be discussed, or at the very least identifying the specific perspective on these concepts and pointing out how they might be approached in relation to radical left and anarchist practice. Rather than a formal approach (Kalberg, 1980) that takes concepts as logical entities to be analysed in accordance with universal norms like internal consistency, the discussions included below are based on a substantive approach (ibid.) whereby concepts are seen in context and in relation to other concepts, values and practices. Instead of interrogating the concepts that emerge from the discussion of anarchism and cybernetics and from the interviews with activists, I will examine how they operate in the setting of radical left and anarchist social movement organisation. Much of the context within which concepts will be discussed comes from a set of academic disciplines: anarchist studies, critical management studies, social movement studies, information, media and communication studies and political philosophy. It is the boundaries of these fields that this thesis straddles.

4.7 Conclusion

While I will draw on the interviews I conducted with activists to define the organisational and communications backgrounds of the radical left movement in the Netherlands (Chapters 5 and 8 respectively), the core of the work carried out will be of the philosophical nature described above. The two main research questions mentioned above are: firstly, how might control, understood as self-organisation, be understood in line with anarchist concerns for autonomy and democracy?; and secondly, what conceptualisation of communication is appropriate in relation to anarchist accounts of self-organisation? I take these questions up not in the sense that they can be answered by appeal to empirical data that reveals some truth (even if that truth is co-produced in the course of the research) but in so far as they point towards philosophical discussions of self-organisation, autonomy, communication and alternative infrastructures. How the empirical research, the interviews carried out with activists, contributes to these philosophical discussions will hopefully be obvious when reading the chapters themselves. In general they have suggested the topics and themes at work and have pointed towards avenues and challenges not immediately apparent in the treatment of anarchist cybernetics included in the previous two chapters.

SECTION 2 : CONTROL

Chapter 5 : Anarchist Organisation and the Radical Left in the Netherlands

5.1 Introduction

In this section of this thesis (Chapters 5, 6 and 7), I want to examine in more detail what self-organisation and autonomy mean in the context of an anarchist cybernetics. Anarchist cybernetics suggests an account of organisation in which individuals and sub-groupings within an organisation operate autonomously, making their own decisions and participating in organisation-wide decision making. It is in this sense that they groups are self-organising.

The following two chapters ask how self-organisation and autonomy can be maintained within radical left social movement organisations. The first considers the distinction between strategy and tactics and identifies some of the functional levels of such an organisational form. The second elaborates on the precise nature of autonomy within an anarchist cybernetic framework. To preface these chapters, I will here discuss anarchist and radical left organisation in general before providing background sketches of the radical left scene in the Netherlands.

5.2 Anarchism as a theory of organisation

Anarchist organisation has come to the fore in discussions of radical left social movements since the 1990s and the rise of the alterglobalisation movement (e.g. Epstein, 2001; Graeber, 2002; Maeckelbergh, 2009, pp. 85-88; Reedy, 2014). Again, in the context of the uprisings of 2011 and after it is often anarchist accounts of radical, participatory democracy and of prefiguration that have been the focal point of academic debate (e.g. Bray, 2013; Dean, 2013; Graeber, 2013; Bergfeld, 2014). But what is it, exactly, that constitutes anarchist organisation? Colin Ward writes (1966, emphasis in original) that 'there are at least two kinds of organisation':

> There is the kind which is forced on you, the kind which is run from above, and there is the kind which is run from below, which can't *force* you to do anything, and which you are free to join or free to leave alone.

Anarchists, he argues, are people who want to reduce the scope and influence of the former while expanding and strengthening the latter.[33]

While ostensibly being built around the maximum level of autonomy or freedom, as Benjamin Franks notes (2006, pp. 196-200), examples of anarchist organisation can look quite distinct from one another depending on the context and the ideological inspirations. On the one hand, there is the broad distinction between workplace and non-workplace organisation. On the other, there are varying degrees of participation and democracy at work. At the least-participatory end of the scale are underground cells, operating in conditions that criminalise anarchist activism, and extremely hierarchical organisations with a privileged, in terms of information and decision-making, leadership (ibid., pp. 227-230). More participatory but in fact sharing much with the centralisation of traditional Leninist organisation are the groups influenced by *platformism* (which takes its name from a document written by anarchists who opposed the Bolshevik take-over in Russia). Franks links this tendency to the concept of a vanguard of anarchists 'that knows the best means to achieve goals' and 'recreates a hierarchy between the "conscious" minority and the subjugated masses' (ibid., p. 221).[34] He instead identifies the network or federation approach to organisation as one of those that is most in tune with the autonomy and self-organisation at the heart of the anarchist movement as it has developed in recent years (see also, e.g. Ward, 1973, pp. 51-52; Gordon, 2008, pp. 14-17; Graham, 2011).[35] Franks writes (2006: 225-226):

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[33] Crucially, for Ward and other anarchists, the point is not only to build alternatives to organisational forms that dominate and exploit people but to engage in and expand those alternatives that already exist in the cracks of the present mainstream (see, e.g. White and Williams 2014).

[34] It should be noted that platformism is not universally rejected by contemporary anarchists and its focus on workplace organising is still championed both in practice and also in the academic literature (e.g. Shantz, 2010)

[35] The idea of the network and of networking technologies has been more generally linked to radical social movements, with authors, such as Manuel Castells most famously (e.g. 1996), arguing that networks, which prioritise horizontal flows between dispersed nodes rather than top-down, centralised structures, best reflect radical forms of organisation. Using networks in social analysis is nothing new (indeed, the idea goes back to sociologist Georg Simmel (1908) in the early twentieth century), but since the 1990s it has been increasingly linked to non-hierarchical social movements like anarchism (Juris,

> In a network, if a particular activity is considered by a participant to be inappropriate they are free either to abstain or even undertake opposing action outside of the network. It would still be possible for them to rejoin in other events that did meet their interests. This method of organisation has prefigurative elements favourable to anarchists. It employs a free contract and allows for greater flexibility of operation.

Franks' concern for autonomy alongside flexibility here reflects the two sides of the anarchist coin mentioned above: effectiveness as well as moral and political values.

The kinds of organisation I will discuss here are social movement organisations. What I am interested in are those groups that campaign around certain issues, provide support networks for activism, agitate towards radical goals by demonstrating or producing propaganda and, importantly, try to create anarchism in the here and now within their own organisations and wider milieus. These anarchist organisations display the kinds of organisational dynamics that anarchist cybernetics tries to understand. The specific practices put to use in anarchist politics over the last two decades, which anticipate their anarchist incarnations in the radical feminism of the 1970s and in Quaker communities (Maeckelbergh, 2009, pp. 15-16; Starhawk, 2011, pp. 1-7), converge around the ideas of participatory democracy, voluntary association and consensus decision-making (Maeckelbergh, 2009, pp. 11-19). Here, I provide a brief overview of the various groups that make up the radical left in the Netherlands. While my approach to my empirical research was not focussed on a representative sample of the radical left movement, the interviews did involve members of a range of organisations and provides a background that contextualises the discussions in the subsequent chapters. The background sketches offered here draw on both academic and activist literature as well as the interviews I conducted with activists. This mix of sources allows me to present a background not just to anarchist organising but to the specific milieu in which the activists I spoke to operate.

First, however, a word on the distinction between anarchist and Marxist groups. Marianne Maeckelbergh introduces the notion of participatory democracy by

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2008; 2012). The connection between network theory and radical left organisation is perhaps misplaced given the role of the idea of networks in the work of Paul Baran for the RAND corporation in the 1960s (Baran, 1964).

contrasting it with the centralisation of traditional Communist parties in Europe, North America and Latin America. Social movements emerging around this time began looking away from the hierarchical party structure. Franks similarly locates anarchist organisation in opposition to the Leninist party structure (2006, pp. 212-216). Indeed, the association of Marxism with centralisation, hierarchical domination and a rigid bureaucracy is often held up as the antagonist to anarchism's decentralisation, autonomy and democracy. Elsewhere, however, Franks (2012) highlights the common ground shared by certain Marxist and anarchist approaches to organisation, and it is important not to understand these broad categories of organisational form as too rigid.[36] At the heart of the following discussion of the radical left in the Netherlands is a balance between centralisation and autonomy and how this is characterised in organisational forms.

5.3 Radical Left Organisation in the Netherlands

Of the eighteen activists I interviewed between February and September 2013, thirteen were members of seven different radical left groups (see Appendix One and Table 2), with the other five being involved in a range of specific campaigns, running websites or active in infrastructures such as collectively run cafés. The thirteen who are members of radical left groups are also involved, as is often the case, in a range of other projects, but in this chapter I will focus on how they describe the organisational structure of the groups they are members of.[37] Starting with Marxism and then moving onto anarchism, I will present a brief history of these movements in the Netherlands and then discuss the groups of which the activists I interviewed are members.

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[36] In terms of organisational form, an interesting connection can be drawn between anarchism and Autonomist Marxism (see, e.g. Gautney, 2009; Hardt, 1996; Hardt and Negri, 2004; 2011) and the Marxism of Rosa Luxembourg (Duda, 2012, pp. 66-68).
[37] Given the sampling strategy adopted (see Chapter 4), the organisations I discuss here reflect only a partial section of the radical left in the Netherlands. Given the access I was afforded, the overview here misses out some important groupings such as those focussed on immigrant rights, feminism, animal rights and so-called insurrectionary anarchism, to name but a few.

Group	Political Affiliation	Form of Organisation
Internationale Socialisten (IS)	Marxist, Trotskyist	Hierarchical, Democratic Centralism
Socialistische Alternatieve Politiek (SAP)	Marxist, Trotskyist	Non-hierarchical, Consensus Decision Making
Anti-Fascistische Actie (AFA)	Anarchist	Non-hierarchical, Consensus Decision Making
GroenFront! (GreenFront!)	Anarchist	Non-hierarchical, Consensus Decision Making
Vrije Bond (Free Union)	Anarchist, Syndicalist	Non-hierarchical, Consensus Decision Making
Locale Anarchistische Groep (LAG)	Anarchist	Non-hierarchical, Consensus Decision Making
Doorbraak	Undefined Radical Left	Non-hierarchical, Consensus Decision Making

Table 2: Radical left groups in the Netherlands, their political affiliations and organisational forms.

5.3.1 Marxist Organisation in the Netherlands

Formed in the early twentieth century, the Dutch Communist Party (CPN) always defined itself as autonomous of the international Communist leadership in Moscow calling, for example, for the dissolution of the Warsaw Pact along with NATO. Its share of the vote in national elections peaked once at around 11% immediately after the Second World War, owing to the communists' involvement in the resistance, but both before and after popular support was lacking. In the 1980s the party shifted further away from Communist orthodoxy and developed a position based on bringing feminism and class-struggle together. This saw the CPN form an alliance with other left-wing parties to establish Groen Links (Green Left) and the CPN disbanded in 1991 (see Voerman, 1993 for an overview of the history of Dutch communism). Groen Links, which combined 'old left' priorities with 'new left' ones such as environmentalism, has developed since to become a key opposition party in the Netherlands but has been criticised for lurching to the right after, for example, voting in parliament to support the Dutch mission in Afghanistan. In the mid-1960s, a pro-China group within the CPN was expelled and eventually became the Socialistische Partij (Socialist Party, SP). The SP has developed from a small sect to a large party that is now the main left-wing

opposition. Although its success has been moderate in recent years (dropping from a high-point of 25 seats in 2006 to 15 in 2010 and 2012), it remains the most visible left-wing organisation in the country (de Jong, 2014).

The two extra-parliamentary Marxist organisations represented in the sample of activists I spoke to during the research are the SAP (Socialistisch Alternatieve Politiek (Socialist Alternative Politics)) and the IS (Internationale Socialisten (International Socialists)). Both are small Trotskyist groups and are active in various campaigns throughout the country, including anti-austerity protests, trade union struggles and anti-racism campaigns. The examples of the SAP and the IS illustrate nicely the distinctions within the Marxist movement in terms of organisational structure. The IS, a sister organisation of the UK's Socialist Workers Party, works along the lines of democratic centralism with a central committee elected by the members at an annual conference (as outlined by, for example, Lenin (1902) and Trotsky (1937)). While the broad strategic and campaigning priorities are decided by the members, the central committee is responsible for implementing these in practice and making decisions between conferences. Evert, an IS member I interviewed, described the role of the central committee as follows:

> they try to look after the big things and to have political discussions about what's important at that moment and about campaigns that are going on, whether it's about trade unions, anti-racism or refugees… It's about how we as an organisation are involved and that's something they send out to the branches. (Evert, IS)

On the question of hierarchical, top-down control, Evert was dismissive of the common critique of democratic centralism that it is authoritarian, arguing that it is about finding a balance between leadership by a committee and by the membership as a whole.

The SAP, on the other hand, while originally formed with a similar party-like, centralised structure, has in recent years adopted an organisational structure that has more in common with anarchism. This is reflective of the point raised above about typically anarchist forms of organisation, becoming influential in the wider radical left since the early 1990s. As one SAP activist I spoke to, Anton, commented:

> […] when I joined there was a discussion in the organisation about the structure, because the structure used to be that of a party with branches and a leadership, etc., and we decided to change that into a much more horizontal structure. I think now the main way to make decisions is, in general, national meetings and we try to make our decisions in these general meetings where everybody has a vote if necessary but we try to reach consensus.

> What was necessary, most people agreed on, was not another party but a space in which to bring people together who are active in different social movements. And that led to, I think, the choice for a horizontal organisational structure, because in that way you can collectivise all persons' experiences and contributions much more easily and you don't have these bureaucratic layers or procedures. In our case we just have general meetings and everybody is there and everybody can say what he or she thinks. (Anton, SAP)

This description shows the importance of not only consensus decision-making procedures to a non-anarchist radical left group but also the concept at work of a network of activists, rather than the more rigid structure of membership and top-down control one might assume from an explicitly Marxist group.

5.3.2 Anarchist Organisation in the Netherlands

Despite hosting one of the pivotal gatherings in European anarchist history, the 1907 International Anarchist Congress, the Netherlands has never had anything like the large anarchist movements seen in some other countries. Dutch anarchism has its origins in the rejection of parliamentary politics by the first elected socialist Ferdinand Domela Nieuwenhuis (Faes, 2006, pp. 29-30). Nieuwenhuis, a former preacher, acted almost as a saint of anarchism in the Netherlands and rejected all explicitly anarchist organisation, encouraging instead single-issue campaign groups around, for example, anti-militarism and abstinence from alcohol (Altena, 2014, p. 402). In the 1920s and 30s, groups such as the *Vrije Jeugd Verbond* (Free Youth Union) and the *De Moker* (The Sledgehammer) focussed on anti-militarism and anti-work campaigns respectively. The former group set up, in 1933, the annual *Pinksterlanddagen* camping festival (named after *Pinkster*, Dutch for Pentecost, the national holiday during which the festival takes place) (Hazekamp, 2008, p. 19). The 1960s saw a revival of anarchism in the Netherlands with the formation of the Provo movement ('provo' an abbreviation of '*provoceren*' or 'to provoke') (Kempton, 2007). Squatting became the focus of the Dutch anarchist

movement in the 1970s and 80s. The movement at this stage was heavily influenced by the Germen *autonomen* (Katsiaficas, 2006, pp. 111-117) and resulted in an infrastructure of social centres that remains in part to this day. Squatting was effectively banned in 2010, although many squats do still exist, and the movement has shifted and now takes on the form of a sub-cultural 'scene' (Haunss and Leach, 2007; Leach and Haunss, 2008)[38] rather than a thriving movement.

Within the anarchist scene in the Netherlands, the groups that are active can be divided into national federations and local groups. In the first category are AFA (Anti-Fascistische Actie (Anti-Fascist Action)), an anti-racist and anti-fascist group active since the 1990s; GroenFront! (GreenFront!), a radical environmentalist organisation; and the Vrije Bond (Free Union), a syndicalist trade union-come-activist organisation focussed mainly on workers' rights and conditions. Each is active at a national level and is formed of autonomous branches in different cities as well as specific campaign working groups. Both at the level of the national organisation and in the local working groups, decisions are made on the basis of consensus. Thijs, an activist involved in AFA, for example, described it in contrast to the typical party structure as 'Horizontal. Yeah, no leaders, no central committees. Just everybody working together without a hierarchical structure':

> For example, AFA was made out of local groups that were all autonomous, so you had different groups from different cities or you had different interest groups… they were all autonomous. They could do whatever they want within the Anti-Fascist Action guidelines. (Thijs, AFA)

Alongside this model of autonomous working groups, AFA has national gatherings but these are rarely used for decision making and focus more on information sharing and discussing the activities of the working groups. When decisions do take place they are made by consensus and all members of the organisation are welcome to attend these national gatherings: 'Everybody could come there but at least one person from every

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[38] This notion of a scene is important because it has been described as a space that allows for certain organisation arrangements to be developed and experimented with (Haunss and Leach, 2007, p. 80). It is this space and this idea of a scene that provides the context for the anarchist groups active in the Netherlands today. Fabian Frenzel writes of protest camps similarly as spaces of experimentation and innovation (2014).

group should be there and they should have a mandate from the group to make decisions' (Thijs, AFA).

GroenFront! operates in much the same way, with autonomous working groups using the name as a banner for different campaigns and getting support from the larger network. Paul, a GroenFront! activist, described it in the following way:

> It's not an organisation but a network, so we don't have a formal structure or a head office or whatever, and basically GroenFront! is a slogan or a name anybody can use who sort of roughly fits into all the traditions around GroenFront!: eco-anarchism, being anti-economic growth, non-violence, direct action and earth-centred. Basically, if somebody sees an opportunity for a campaign he asks around in the network for help and can set up a campaign. (Paul, GroenFront!)

The activists in groups like AFA and GroenFront! see this form of organisation as truly democratic, where the network of activists votes with their feet, so to speak, on whether a campaign is something they will engage with:

> It works really democratically in the sense that if you have an idea that nobody likes then you won't get any support so it will be pretty difficult to set up a campaign. [...] if you really object to a certain campaign you just won't show up. (Paul, GroenFront!)

Again, this follows the general model of anarchist organisation discussed above in terms of participatory democracy and voluntary association.

The Vrije Bond works in a similar manner with local and working groups focussing on their own areas. This was, however, described as a downside to the federated model of organisation in so far as it leads to a ghettoization of activists in particular niches:

> I think one of the problems is that we always focus maybe even too much on forming local groups, which is good I guess, but there are also lots of places where it's not that easy to have a group. But then… if there's need for a poster or flyer it's, at this moment, always the same four or five people who get to do it. (Timon, Vrije Bond)

Like the SAP, the Vrije Bond has a secretariat that deals with the day-to-day administration of the organisation such as answering emails and distributing printed materials to the different local groups. This body, while not having any authority over

local groups, is similarly restricted to a particular location, resulting simply from the necessity of such a group to meet regularly and the prohibitive travel time and costs faced by other activists in trying to get to a certain place for a meeting. While the initial idea with having a secretariat as a form of working group in one place was that it would be rotated, according to Timon, the Vrije Bond activist I spoke to, they

> never rotated it since it's started, because you're glad that people are doing it. […] They are really busy making like a transparent structure to make it easier to share, but that's not there yet. (Timon, Vrije Bond)

The explicitly anarchist groups discussed so far all adhere to the organisational form of the non-hierarchical, participatory and democratic network or federation. They all operate as networks of local and working groups, with the larger organisation acting more as a forum for sharing information and requesting and receiving support in certain campaigns. The national assemblies are not focussed on decision making and do not transmit commands down to branches. As such, they differ greatly from the central committees or congresses of Marxist party-like groups such as the IS.

The one other anarchist group I want to discuss here is distinct from AFA, GroenFront! and the Vrije Bond in that it is a locally-based group in a specific city and not a national organisation. In fact, the LAG (Locale Anarchistische Groep (Local Anarchist Group)) makes up one part of the Vrije Bond federation. While it operates with a much smaller cohort of activists, the LAG still works along the lines of a network with different, overlapping subgroups focussing on different activities. In this case, however, the discussion of these activities would take place at fortnightly meetings and so the activity in question, whether or not every member was involved, would be seen as an activity of the whole group. As one LAG activist, Jay, noted, 'if, for example, we organise something, then everyone can chose for themselves whether they want to be involved' (Jay, LAG). The LAG has similar problems to the Vrije Bond in terms of certain activists always doing the same activities, but this is something they do try to avoid through self-education:

> For instance, I have more experience of graphic design and layout and stuff but I think, for instance, in our group it would be really good if more people were able to… so you want to

teach it. That's actually a bit the same, you know, that we do it together and teach each other. (Tommy, LAG)

Here the anarchist cybernetic principles of autonomy and participation operate at the level of individual members rather than local or working groups, but the same logic applies.

5.3.3 Undefined Radical Left Groups

As well as these explicitly Marxist or anarchist groups on the radical left, there are also examples of groups that do not see a political value in declaring themselves as either Marxist or anarchist. The one example of such a group I want to discuss here is Doorbraak (Breakthrough), a group active in the last decade mainly around issues such as unemployment, forced labour, austerity and racism. One Doorbraak activist, Eva, described the group as a 'grassroots democratic socialist' organisation:

> There are people with us who feel drawn to communism but not the hierarchical and dogmatic variant. Others might call themselves anarchists but want to stay away from the lack of commitment that some anarchist circles show. Anarchism as lifestyle is also frowned upon.

> Everyone in Doorbraak wants to get rid of the capitalist, neoliberal economic model. We take inspiration from examples of practices and struggles from history. We also look at what wasn't good and try not to unthinkingly copy ideologies. We also find inspiration in the squatting and housing struggle, the environmental struggle, feminism, etc. (Eva, Doorbraak)

Aside from this difference, in terms of organisational structure, the group works in much the same way as the anarchist groups and the SAP. There are local branches which are autonomous from any centralised bodies and can carry out their own activities within the overall goals of the organisation. Discussions at annual weekend gatherings focus on reaching consensus on the broader aims of Doorbraak. As one activist, Eduart, put it:

> Discussions over the big lines are taken once a year at our Doorbraak weekends, and in between, every branch and every member has a mandate to be active within this framework, as much as possible in agreement with other branches and members. (Eduart, Doorbraak)

It was stressed, however, that collective decisions are only made about the really important issues and most of the time individual branches are free to take their own course.

5.4 Conclusion

While anarchist groups like AFA, GroenFront!, the Vrije Bond and LAG are, unsurprisingly, organised along the lines of individual and group autonomy, decentralisation, participatory democracy and consensus decision making, so too are the Marxist group SAP and the undefined radical left group Doorbraak. The organisational practices of these groups all converge around what can be described as an anarchist politics. The IS is the only group discussed here that remains organised as a traditional political party with a centralised leadership.

In the following two chapters I will expand on the first of the two research questions that motivate this thesis, i.e. how might control, understood as self-organisation, be understood in line with anarchist concerns for autonomy and participatory democracy? I have sub-divided this question in two parts, determined by the above discussion and by the core issues that emerged in my discussions with activists. In Chapter 6 I will look at the difference between the autonomous parts of an anarchist organisation and the overall organisational structure. In Chapter 7 I will return to the question of autonomy but this time by examining the specific nature of autonomy in anarchist cybernetics. These two lines of approach will help articulate the specific dynamics of control at work in anarchist cybernetics.

Chapter 6 : Tactics, Strategy and Grand Strategy

6.1 Introduction

The organisational form of contemporary radical left and anarchist groups reflects a commitment to participatory democracy and self-organisation. For the groups on the radical left in the Netherlands discussed in the previous chapter, this is almost always manifest in a distinction between local working groups or individual activists on the one hand, and regional or national meetings on the other, and on how these relate to one another. In this chapter, I want to return to organisational cybernetics and the Viable System Model in order to elaborate on precisely how this distinction can be better understood. The idea of functional hierarchy that I introduced in Chapter 3 will be crucial in this regard, for it allows for higher and lower orders of decision making without necessitating structurally higher and lower levels within an organisation. I will try to flesh this out by making use of the broad distinction between strategy and tactics, and indeed by expanding this framework to include the idea of grand strategy. This will, I hope, help highlight how the different parts of the Viable System Model, and indeed of viable systems and organisations themselves, work in practice and how they do so in the context of the participatory democracy and self-organisation at the heart of radical left and anarchist politics.

6.2 Returning to the Viable System Model

In Chapter 2, I noted that Beer divides the VSM into two parts. He describes Systems One and Two of the VSM as relating to the autonomous parts of the organisation. They may maintain a level of stability and be self-organising, but, Beer argues, they would do nothing more than 'hunt about aimlessly' ([1981] 1994, p. 129) as they are as yet not part of any larger organisational whole. This lower operating system is in need to metasystemic guidance. Systems Three, Four and Five bring these autonomous activities into line with the whole organisation. Framing this in terms of roles and

functions rather than structural hierarchies, Beer writes that the function of Systems Three, Four and Five is 'recognizing that [their] own autonomous division is part of corporation' (ibid., p. 179). For anarchist organisation, the same distinction can be seen between individual activists and working groups, on the one hand, and assemblies and general meetings, on the other. The former work autonomously while the latter deal with the whole organisation, be it a protest camp, a local activist group or a national (or international) federation (see Figure 2 in Chapter 3 and repeated below as well as Table 3 below).
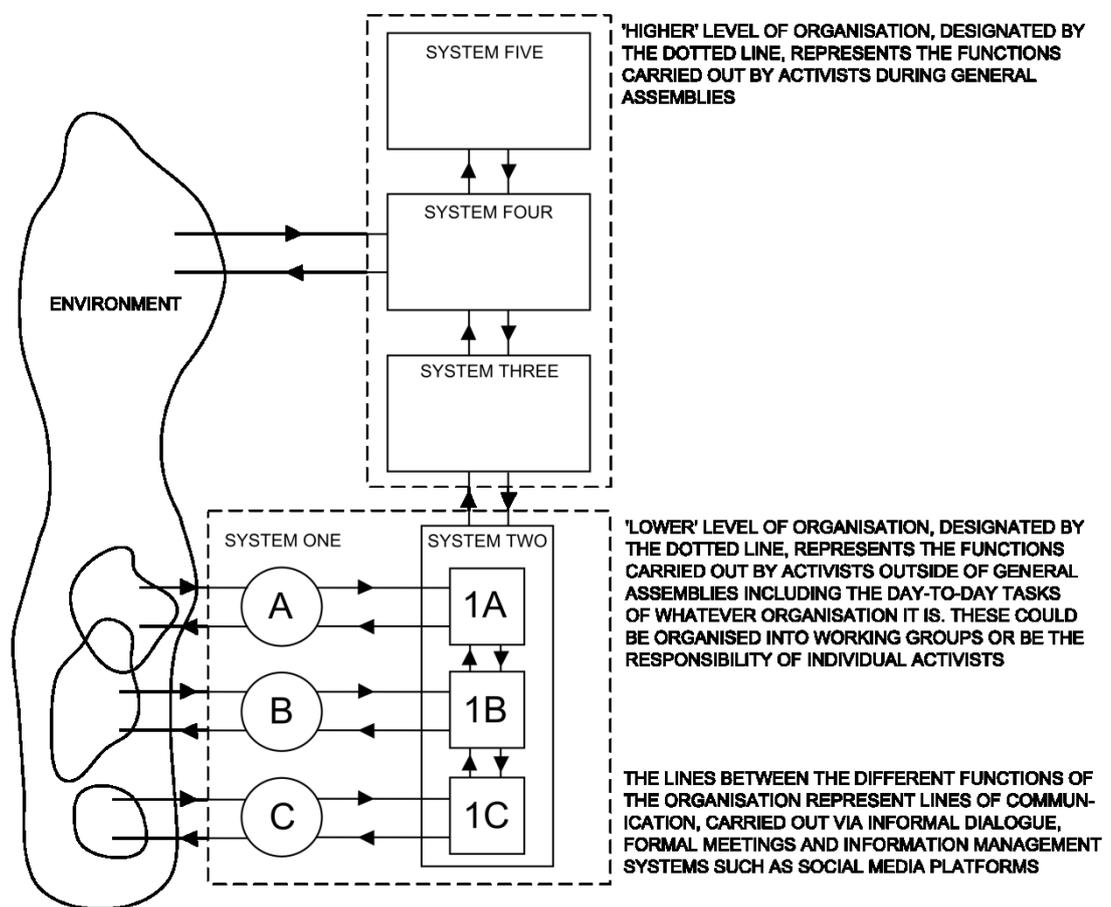
Figure 2 (repeated from Chapter 3): The anarchist cybernetic version of Beer's Viable System Model. (Based on Beer's depiction of the VSM in Brain of the Firm ([1981] 1994, p. 128)

The autonomous parts of an anarchist organisation will either be individual activists (as in the case of the Locale Anarchistische Groep) or local working groups (in the case of the Vrije Bond). This constitutes Systems One and Two, the operating system. Systems Three, Four and Five, the metasystem, are in turn constituted by either the local group

coming together for weekly or monthly meetings involving all group members, or by the national federation holding a meeting for members of all local working groups. What goes on the metasystem might also be more informally facilitated through internal group communications on internet forums or social media platforms. While a group like the Internationale Socialisten has a hierarchical structure, with a central committee making day-to-day decisions, anarchist groups like those discussed in the previous chapter have a functional hierarchy without a structural one.[39]

In discussing functional hierarchy, Beer draws out the distinction between higher and lower parts of an organisation: 'The "higher" level is characterized not by its capacity to command, but by its order of perception and its order of language in logic' ([1979] 1994, p. 68). He makes clear that he prefers the term 'metasystemic' to 'higher', arguing that '"Meta" means "over and beyond", referring to the perception and the logic, and not to Seniority' (ibid., p. 69). The metasystem or higher part of the VSM, then, is not a centralised authority but a process of framing lower activities. The autonomous activities of Systems One and Two are conditioned and made sensible within a framework determined at Systems Three, Four and Five.

As was discussed in Chapter 3, attempting to develop an anarchist cybernetics raises the idea that a structural hierarchy is in no way necessary to radical left and anarchist organisation and that the restrictions on the autonomy of individuals and local working groups within an organisation can be facilitated in a democratic way. Indeed, recognising that the metasystem is a series of functions and not an organisational structure allows for the same people that are involved at the operating system level also to be involved at these metasystem levels.

6.3 Strategy, tactics and functional hierarchy

One rather neat way of describing the distinction between the operating system (Systems One and Two) and cohesive or metasystem (Systems Three, Four and Five)

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[39] They may well have informal structural hierarchies such as those manifested by certain activists having influence over the group or others being excluded (e.g. Freeman 1970; Gerbaudo, 2012), but I will focus on the functional hierarchy of anarchist organisation here.

levels of an organisation is through the notions of tactics and strategy. Beer does just this when he suggests that Systems One and Two are involved in tactics while System Three is involved in strategy (ibid., p. 360; see also, e.g. Pickering, 2010, p. 245). This is, I would argue, misleading as for Beer Systems Three and Four operate along similar lines but with System Three focused on the internal environment and what happens at Systems One and Two while System Four is focused on the external environment and the potential future of the organisation. I want to think, therefore, of Systems Three and Four as both strategic and of strategy as encompassing, as Beer puts it, the 'inside and now' as well as the 'outside and then' of the organisation (indeed, this is how strategy is defined by some organisation theory scholars (e.g. Carter, Clegg and Kornberger 2008; for broader discussions of strategy in critical management and organisation studies, see e.g. Knights and Morgan, 1991; Levy et al., 2003)). These two elements of strategy reflect a concern with, on the one hand, what is happening at the moment inside the organisation and how best to regulate it in order to achieve set goals and, on the other hand, what is happening outside in the environment and what are the possible futures of the organisation, again with a view to regulation and achieving goals. The broad distinction between strategy and tactics I am putting to work here reflects the thinking of, among others, military theorists Carl von Clausewitz (1997) who defines tactics as that which focuses on specific engagements and strategy as that which brings those engagements together to achieve a common aim.[40]

In speaking of tactics in radical left organisations, the notion of repertoires is useful. The idea of social movement repertoires was introduced by Charles Tilly (e.g. 2010; see also della Porta and Diani, 2006, p. 168-185) and is used to refer to forms of collective action in social movements. Anarchist studies scholar Uri Gordon applies the notion of repertoires to a radical social movement setting and to anarchist politics. 'In terms of action repertoires', he writes, 'anarchist political culture emphasises a 'Do It Yourself' approach of direct action – action without intermediaries, whereby an individual or a group uses their own power and resources to change reality in a desired direction' (2008, p. 17; see also Franks, 2003 and Graeber, 2009 on direct action and anarchism). This type of tactical action involves repertoires that create alternatives in the here and

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[40] While it may be a bit of a surprise to find recourse to von Clausewitz in a discussion of radical left theory, but as Howard Caygill argues (2013), von Clausewitz's work can be read in line with the priorities of radical social movements.

now, something discussed in previous chapters as prefiguration and that I will return to below.

The tactics at work in radical left organisations, drawing on how the activists I spoke to described what they do on a day-to-day basis, include a wide range of activities. A tactical repertoire might include demonstrations, occupations of buildings, blockades of roads or gates to detention centres, physically stopping extreme right groups from marching through towns, resisting evictions of squats, destroying genetically-modified crops, sabotaging hunting cabins, throwing water balloons or paint bombs at certain politicians or disrupting speeches given by individuals activists are opposed to. Less confrontationally, they might involve standing in solidarity on picket lines, distributing flyers, forming a radical block on a mainstream demonstration, creating videos as part of alternative news platforms or putting up posters urging people to reject racist political parties during an election. Tactics might also be the more mundane activities of working the bar at a squatted concert venue, cooking meals in a collectively-run café or cleaning the windows of a local social centre. These daily acts of social reproduction are just as important tactically to what radical left groups and activists do. In a social centre I used to frequent there was a small model of a kitchen sink with written on it: 'First the washing up, then the revolution'.[41] The tactical repertoire of radical left groups includes all this and more.

How does this distinction between tactics and strategy operate in anarchist organisation, in which democratic participation is key? Taking an anarchist cybernetic viewpoint on strategy, and looking at the discussions I had with radical left activists, three important elements of strategy come to the fore. Firstly, strategy should act as a tool or process that frames tactical action by setting out the overall goals and longer-term aims of the organisation. Second, strategy should be prefigurative. Thirdly, strategy should be flexible.

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[41] It is worth noting here the importance of the idea of social reproduction and the recognition of the politics and economics involved therein. In social movement activism, roles are often allocated in ways that mirror gendered divisions of labour in mainstream society, with work involved in reproduction (cooking, cleaning, child-raising, etc.) being the purview of female activists (see, e.g. Culley and Angelique, 2003; Lawson and Barton, 1980; Motta et al., 2011 on the role of women in social movements; and Mueller, 2003, p. 127 on this in specific relation to anarchism).

Functionally lower operating system	System One	Tactics	Autonomous operating in environmental niches
	System Two		Coordination between autonomous units
Functionally higher metasystem	System Three	Strategy	Internal, organisation-focussed regulation in line with overall goals – looking at current situation of organisation
	System Four		External, environment-focussed regulation in line with overall goals – looking at future situation(s) of organisation
	System Five	Grand Strategy	Overarching identity or ethos that defines the organisation

Table 3: The Viable Systems Model seen in terms of tactics, strategy and grand strategy.

6.3.1 Goals and repertoires

In terms of strategy as being about defining the overall goals of the organisation, the interview with Doorbraak member Eva was illustrative:

> [w]e decide with one another which political topics we should focus on but there is enough room for filling these in in local contexts or for local topics that aren't extensions of our main themes. (Eva, Doorbraak)

Here the strategic function of defining the goals of the organisation (the metasystem of Systems Three and Four) is visible as is the importance of autonomy at local working group levels (the operating system of Systems One and Two). A strategy is defined by the group which can be 'filled in' by local autonomous groups. This was echoed by Eduart, another Doorbraak member, who noted:

> The main themes [of the group] are: work/crisis/forced labour/precarity – migration control/refugee struggle – fascism/racism/nationalism/Wilders [the leader of the extreme-right Party for Freedom] and co. – (neo-)colonialism (Eduart, Doorbraak).[42]

Within these broad themes, then, local Doorbraak groups are able to operate autonomously and decide themselves how to operate. The strategy determines in part

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[42] This interview was conducted by email, hence the prose.

the form that the tactics will take but leaves enough room for tactical autonomy to respond to situations in which a more centralised strategy would be too slow to act or too generalised to provide a detailed focus.

At other times, strategic decision-making might be more wide-reaching than defining certain core themes or goals and stretch to include restructuring the organisation itself. In the previous chapter I described how the Socialistische Alternatieve Politiek (SAP) underwent a shift from a traditional party structure to a more horizontal anarchist-type structure. One SAP activist, Anton, highlighted the role of strategic decision-making in this change, where there was a 'discussion in the organisation about the structure' during which he witnessed 'a changing idea of what the organisation should be' (Anton, SAP). Crucially, this meant a re-articulation of the autonomy different activists and local working groups have within the overall organisation. This suggests that strategy includes not only the definition of the organisation's goals and how these set out the scope of the autonomy individual members and local working groups have, but also the structures, mechanisms and processes that are put in place to facilitate autonomous action at functionally lower levels of the organisation. Of course autonomy at operational levels of radical left organisations means that individual activists and local working groups can decide themselves on what tactics to pursue in specific situations, but, crucially, strategies adopted at meetings and assemblies do at the very least suggest certain tactics or limit the choice of tactics within a certain range.

The strategies decided upon by radical left groups are what restrict the tactical options available to activists and local working groups. So when a group like Doorbraak, for example, decides collectively that precarity or racism will be core campaigning concerns, this restricts to an extent the tactical autonomy open to local working groups. If one group wanted to focus on the benefits of the flexibilisation of labour, for example, this would be seriously questioned within the organisation and might even be decided to be outwith the spirit of the campaign around precarity (on the basis that opposing such flexibilisation is a core aspect of an anti-capitalist opposition to neoliberal capitalism).

Interestingly, the question of strategy came up most in reference to situations where a distinct lack of a shared strategy was a problem. For example, the Vrije Bond activists I spoke to, Timon, said of the radical left in the Netherlands in general that

> activists are somehow really bad at campaigning, like having a more or less longer-term idea of what you're doing, having really talked through how to get to your goal, a demonstration for example.

He went on to say,

> I think since people also have too little time and that's one of the reasons people say "okay, we're just going to do something simple," so that stays really hard. (Timon, Vrije Bond)

The risk identified by some of the activists I spoke to in terms of a lack of strategy was that this would lead to precisely the kind of purely tactical action Beer warns of when he says that System One and System Two functions need to have the strategic oversight of Systems Three and Four in order to be directed towards organisational goals. One SAP activist I interviewed, Mark, who was involved in the Occupy camp in Amsterdam, reported that 'there was a resistance to thinking strategically' (see also Bray, 2013, pp. 88-91):

> It moved into the period where there needed to be organising and the hard work really begins, there just didn't seem to be, even though there were a number of people with this attitude, there just wasn't space within it to have serious conversations about the long term and building a movement. (Mark, SAP and Occupy Amsterdam)

Highlighting the need for strategy in radical left organisation is an important development (and could point towards a way past the sense of frustration and disappointment with the lack of stable, long-term processes of change in radical left and anarchist movements). As Maeckelbergh points out, much of the key work in social movement studies that examine how social movements have changed since the 1960s tends to prioritise tactics over strategy. Social movement scholars such as Wini Brienes (1989) and Barbara Epstein (1991) see a tactical focus in new social movements (those that parted ways with traditional left-wing organisations like trade unions and political parties, and with which the alterglobalisation movement and contemporary anarchism

are most closely associated) that rejected strategic thinking as oppressive. For Epstein, new social movements adopt tactical repertoires that produce political cultures. Rather than working towards strategic goals, these repertoires, she argues, 'draw upon a current of morally charged and expressive politics' (2001). 'What is important', she writes, 'is whether the movement establishes an image of expressing rage for its own sake, or of acting according to an ethical vision' (ibid.). Epstein is scathing of what she sees as a lack of strategy and a prioritisation of repertoires that create an image of radicalism without being directed at real change.

On the one hand, the experiences of SAP member Mark of Occupy Amsterdam and of Vrije Bond member Timon support this characterisation of anarchist activism lacking strategic direction. However, the fact that they highlight this, and that other activists I spoke to have discussed strategic themes and goals, shows that in fact those involved in radical left and anarchist groups can be far more attentive to the need for strategy than Epstein's analysis makes out. Maeckelbergh argues that contemporary social movements do have a concern for strategy but that rather than focus on a single, unitary goal they bring together multiple goals. This was clear in the quotation from Doorbraak member Eduart who identified a range of goals and themes the group is focussed on. SAP member Anton similarly characterised the group as 'not another party but a space in which to bring people together who are active in different social movements' (Anton, SAP). While the goals of radical left groups may not be singular that does not mean that they do not engage in strategic thinking. Indeed, even groups that may seem to be single-issue campaigns, such as Anti-Fascistische Actie or GroenFront!, in fact encompass a number of campaigns with their own strategies. While strategy may be missing from cases such as the Vrije Bond or Occupy Amsterdam, this does not mean that the radical left rejects it on the whole in favour of a purely tactical, 'expressive' politics. These groups have multiple goals, and as Maeckelbergh defines it, '[s]trategy is a process employed to achieve a certain goal' (2009: 94). As well as their potential plurality, how strategies are determined within these groups is crucial.

6.3.2 Prefiguration

The purely tactical approach described by Epstein and others, in so far as it is said to focus on expressing a certain ethics or principled stance, can be linked to prefiguration, which is itself concerned with tactical repertoires embodying the ends or goals of anarchist or radical politics. I touched on prefiguration earlier in this thesis. Here I want to develop my account of prefiguration and discuss it in relation to tactics and strategy. Maeckelbergh (2009, pp. 66-67, emphasis in original) defines prefiguration as follows:[43]

> In my experience as an activist, practising prefiguration has meant always trying to make the process we use to achieve out immediate goals an embodiment of our ultimate goals, so that there is no distinction between how we fight and what we fight for, at least not where the ultimate goals of a radically different society is concerned. In this sense, practising prefigurative politics means removing the temporal distinction between the struggle in the *present* towards a goal in the *future*; instead the struggle and the goal, the real and the ideal, become one in the present.

Other authors writing on prefiguration provide more philosophically detailed definitions. Mathijs van de Sande (2013, pp. 230-233; see also 2015), for example, offers a tripartite definition: (1) the realisation of an alternative future in the present; (2) the experimental relationship between means and ends whereby both are rearticulated in practice; and (3) the rejection of consequentialism and the mirroring of means and ends. Luke Yates (2015, p. 4) similarly proposes a three-part definition of prefiguration: (1) the equivalence between means and ends; (2) a focus on building alternative structures of power and decision making; and (3) prolepsis or the realisation of the future in the present.

Combining these definitions, prefiguration can be described as a process whereby:

1) the core features of a future society based on a rejection of domination, exploitation and inequality are realised in the present through

2) alternative structures of power and decision making which involve

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[43] While Maeckelbergh speaks of 'ultimate goals' here, I will below make a distinction between strategic goals and grand strategic goals, the latter of which are closer to the ultimate goals she refers to here.

3) an equivalence between means and ends that

4) rejects consequentialist approaches that justify means by ends and where

5) both the means and the ends are constantly open for re-articulation.

This captures the fact that prefiguration is a process, something that activists do, and that while social movement scholars such as Epstein argue that a politics based on prefiguration and contemporary anarchism rejects strategy in favour of tactics, prefigurative politics in fact rearticulates how strategy operates and how it is defined in these processes. It operates in ways that differ from the traditional practices of political parties and trade unions whereby strategy (goals or ends) is defined by a leadership which then dictates to members the tactics (day-to-day activities) they should undertake. While this structural layer of organisation is missing, this does not mean that the strategy function is also, or at least not necessarily.

For Maeckelbergh, prefiguration acts as social movement strategy in contemporary movements in the sense that it acts as a guide or framework for the tactical action members of social movement organisations undertake. She writes (2009: 95; see also 2011), for example, that

> prefiguration is a movement practice that exists neither instead of strategy nor alongside strategy [...], but depending on which type of goal, can be considered to be strategic in itself. [... I]t constitutes a link between different movement goals and allows for the expression and construction of the crucially important movement goal of "another world".

So on the one hand, these movements have goals that act as parts of their overall strategies while, on the other, having prefiguration as a part of that strategy. This means that the goals or strategies movements have do not determine tactics in a consequentialist sense but in that the goals are prefigured in the tactics. While Epstein and others are right in pointing out the expressive element of contemporary social movement tactics, they are wrong to dismiss the role of strategy in this. Yes, strategy does not determine or dictate tactics that will have the greatest chance of achieving movement goals that are separate from the tactics, but this does not mean that strategy does not determine appropriate tactics. Rather than make a distinction between strategic goals and the tactics that will lead towards them in the future, a strategy of prefiguration determines tactics that will enable these goals to be realised in the present. In this sense,

the tactics and strategy of radical left movements and groups are realised in the same moment. The temporal distinction between strategy and tactics is removed.

More than this, strategy itself can also be described as prefigurative. One can speak, therefore, of a 'prefigurative strategy' as well as a strategy of prefiguration. By 'prefigurative strategy', I mean to point to the fact that the way strategic goals in radical left social movements and groups are developed and agreed upon operates too in a way that prefigures these goals, at least in so far as they set out democratic and participatory forms of organisation. It is not enough for radical left activism to realise certain goals in the here and now; it must also subject the goals themselves to prefigurative practices of democratic decision making. Indeed, van de Sande highlights 'consensus-oriented decision-making procedures (and) the democratisation and "horizontalisation" of organisational structures' as key prefigurative tactics (ibid., p. 232). Within an organisation that is concerned with prefiguration and with participatory democracy, strategy and the overall goals of the organisation will be among the things discussed at whichever forums, meetings or assemblies take place (this sits close to Beer's account of a 'purposeful' organisation as one that 'can deliberate on its own ends' (Pickering, 2010, p. 268; see also Hayles' account of Maturana's concept of *allopoiesis*, 1999, pp. 141-142)).

I would like to propose a reading of these processes in terms of organisational cybernetics and, more importantly, anarchist cybernetics. Indeed, functionally, what I have described above is what happens at Systems Three and Four of the organisation when it is understood along the lines of the VSM. Members of the organisation step out of their System One and Two roles to consider the organisation, its activities and the environment in which it is situated in order to define the goals that will in turn shape the System One and Two operations. Strategy, decided-upon in a participatory and democratic way, comes to set the scope for tactical autonomy; and it does so in a way that retains the functional hierarchy of a logical order between strategy and tactics without, necessarily, resorting to a structural hierarchy of a distinct leadership that decides on the strategy for the rest of the organisation.[44] Crucial to this is the prefiguration of organisational forms that in turn operate as part of and in support of

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[44] For a critical account of participatory strategy see Levy et al, 2003, p. 105-106.

prefigurative strategy. The example of the SAP (where the organisation changed its structure and overall approach to activism) is important as it shows how crucial developing more participatory democratic structures within the organisation was as an element of strategic discussion at a certain stage. Strategy was not simply defining the goals for the organisation but also defining how those goals would be articulated and decided upon. For a prefigurative strategy, therefore, the methods or means are also goals. A specific tactical approach may also be a goal for the organisation in so far as this contributes towards a more prefigurative and democratic way of defining further goals. As well as this, there will of course be other tactics that are not connected to democratic participation that are nonetheless similarly determined and framed by the strategic priorities of the organisation. While Maeckelbergh focuses almost exclusively on forms of democratic decision making, van de Sande and Yates are right to highlight other prefigurative tactics such as 'alternative relations of property, power and production' (van de Sande, 2013, p. 322) and 'domestic practices such as domestic labour arrangements' (Yates, 2015, p. 15).

This is not, however, to say that all tactics need necessarily be prefigurative. A number of the activists I spoke to highlight the continuing presence of a more consequentialist, cost-benefit analysis in their decisions about tactics. One LAG activist, for example, noted:

> I think the most important thing is that you should really look well at what your purpose is, what do you want to achieve and you look at your options and which is the most effective and how you can use it. (Tommy, LAG)

Another activist I interviewed, Martyn, who operates an activist news and video site, made a similar point, arguing that 'if it's the best tool available let's use it, that's it' (Martyn, OurMediaIndyMedia). This is certainly a departure from the account of the relationship between strategy and tactics in radical left groups that is premised on prefiguration. Indeed, it points towards an understanding of strategy and tactical choice more common in other schools of social movement studies (see, e.g. Meyer and Staggenborg, 2008; Larson, 2013). What it suggests is that an instrumental rationality, that choses tactics according to their likelihood to achieve certain ends while not

necessarily realising those ends in the moment, is still in play in social movement organisations more closely associated with prefiguration (Yates, 2015, pp. 16-17).

6.3.3 Flexibility

Something that is often overlooked in accounts of prefiguration is its nature as an experimental process whereby strategic goals and that the tactical repertoires that realise them are in a constant state of flux, being renegotiated as time goes on. This is something van de Sande's analysis highlights. He writes, for example, that Tahrir Square in Egypt during the Arab Spring was a space that was 'inevitably experimental: it was a moment in which new political ideals could be formulated, realised, tested, improvised and continuously discussed' (2013, p. 236). Elsewhere (2015, p. 189) he argues:

> In anarchist theory, prefiguration is often presented as a strategy of direct confrontation with the many forms of injustice, repression, and exploitation that characterize the capitalist order. This means in practice that the radical inversion of such relations and forms of repression entails the hypothetical formulation of alternatives and their continuous reformulation through "trial and error." The famous Zapatista slogan "Preguntando caminamos" (or, "Asking, we walk") perfectly illustrates such an experimental view on radical political processes.

Prefiguration is, therefore, not simply about means and ends being realised together, or about ends being decided upon in a way that prefigures a participatory and democratic approach to decision making. It is also 'a moment in which new political ideals (are) formulated, realized, tested, improvised, and discussed' (ibid.: 190). In terms of strategy and goals, this fits very well with Beer's account of strategy, of the metasystem level of the VSM, as well as the functionally lower, tactical operating system.

Beer underscores planning as the core function that gives an organisation a strategy. Making plans for the future, setting goals, is, for Beer, the 'glue' that holds the organisation together and indeed makes it an organisation rather than a simple set of tactical operations. This does not, however, mean that a rigid strategy is decided upon and then used to frame tactical choice. Rather, for Beer, planning is a 'continuous process' ([1979] 1994, p. 336). In terms that could well reflect the germ of a

prefigurative approach, Beer writes that '[p]lanning is *not* an activity resulting in products called plans: it is a continuous process, whereby the process itself – namely that of aborting the plans – is the pay-off' (ibid., p. 338, emphasis in original). Crucial to Beer's account of planning and of strategy is that such processes result in goals that are constantly aborted and rearticulated as both the organisation and the environment change (Pickering describes Beer's approach to strategy as 'adaptive' (2010, p. 224)). Organisational cybernetics makes much of the flexibility that allows the System One and Two tactical operations of any organisation to make choices that respond in real time to both internal and external change. For strategy, this means that goals need to be able to be renegotiated or even abandoned as situations develop. An organisation with a strategy that is fixed or that changes too slowly will not have the tactical autonomy to respond to and handle change as it arises. It will be using the strategies and tactics appropriate to a previous situation to respond to a new and different one.

What I want to suggest, therefore, is that this continual process of aborting plans and strategies and devising new ones as situations develop is reflected in the prefigurative strategy outlined in this chapter. Indeed, the 'endless flux of planning process' Beer speaks (ibid.) of seems to mirror van de Sande's description of prefiguration as 'a moment in which new political ideals (are) formulated, realized, tested, improvised, and continually discussed'. So not only are the goals of prefigurative strategy decided upon democratically, involving potentially every member of a radical left group or organisation, but they are also being reassessed constantly as part of the commitment to prefiguration. This also applies to the choices of tactical repertoires. It is this flexibility in anarchist, prefigurative organisation that lends itself so well to an account of organisation that focusses on viability and effectiveness, one side of the anarchist coin.

6.4 Grand Strategy and the Ends of Anarchist Activism

The idea that the strategic goals a radical left, anarchist-type organisation holds should be decided upon in a way that prefigures the goals of the organisation may, however, seem on the face of it to be question begging. How can strategy be decided upon in a way that prefigures that very strategy? Surely there must be something preceding these discussions that sets the conditions for the mechanisms of decision making, that sets out

the goals of participation and democracy that are prefigured when activists engage in the strategic, metasystem functions represented by Systems Three and Four of the VSM? In answering these questions I want to return again to the VSM and specifically to System Five, which has until now been missing from this discussion.

System Five of the VSM stands at the top of the model, although as Beer is keen to stress this does not reflect any special authority but, as I have tried to show, only a functional position in the system or organisation. If Systems Three and Four functions are about defining the strategy and goals for the organisation, then System Five needs to be understood as providing something over and above strategy. As Beer describes it, System Five is focussed on providing an overarching ethos, normative planning or identity for the organisation ([1979] 1994, p. 354). These highest functions frame both strategy and tactics within a certain paradigm or worldview (see also Pickering, 2010, p. 248). For a typical corporation this overarching set of goals might include the drive to make profit or to accumulate capital. For radical left groups this will obviously differ. Maeckelbergh, for example, writes of the 'ultimate goal' of radical social movements as 'overthrowing capitalism' (2009, p. 94). Additionally, she speaks of the fact that 'the goal is to create a world in which people are empowered to collectively set their own agendas and pursue their own aims' (ibid., p. 13). David Graeber, discussing Occupy Wall Street, makes a similar point not in terms of goals but in terms of an identity shared by participants. He highlights the 'We Are the 99%' meme as a form of ideology that provided a single identity for activists (2013, p. 84). Crucially, for radical left organisation, this element of closure or identity renders some goals, ideals or perspectives unquestionable. Yates, for example, writes that there are 'realisable, negotiable, targeted and precise movement goals, as well as some that [are] overarching and non-negotiable' (2015, p. 16; see also Mueller, 2003, p. 142-143). These are what social geographers Jenny Pickerill and Paul Chatterton refer to as the 'common sense' of the alterglobalisation movement (2006, p. 735).

Among the activists I spoke to, the presence of an overarching worldview was clearly present in some of the discussions I had with them. The anti-capitalist and anti-domination worldview common to anarchist and radical left politics came through in, for example, the interview I conducted with GroenFront! activist Paul, who spoke of the 'traditions' of the group as 'eco-anarchism, being anti-economic growth, non-violence,

direct action and earth-centred' (Paul, GroenFront!). He went on to describe the politics of the group as 'more fundamental, not so much human-based but more plant-, ecosystem-based politics'. Other activists I spoke to similarly pointed to 'guidelines' (Thijs, Anti-Fascistische Actie), 'identity' (Timon, Vrije Bond) or 'narrative' and 'story' (Joost, Occupy Nijmegen). The Doorbraak activists I interviewed made similar points in relation to defining the ideology of their group as 'grassroots-democratic socialist' (Eva, Doorbraak) and being a 'radical left group that is involved in action from the bottom up' (Eduart, Doorbraak). For Anti-Fascistische Actie, their 'guidelines' included being 'anti-fascist, anti-racist, anti-sexist, anti-homophobia' (Thijs, AFA). The function of this System Five paradigm was clear when this activists went on to note that most strategic decisions would almost always be 'a no-brainer' and that 'we always reach consensus quite quickly'. When I pressed him on this, he added that this was because the activists involved 'all have the same kind of mind-set' (Thijs, AFA).

As an extension of the tactics-strategy dichotomy presented above, this suggests the role of a third element of the politics of radical left groups and movements, what I want here to refer to as 'grand strategy'. The term 'grand strategy' was coined by American military theorist John Boyd during the Cold War.[45] Boyd defines grand strategy as pursuing 'the national goal' and amplifying 'our spirit and strength (while undermining and isolating our adversaries)' (2005, slide 140). The notion of a 'national goal' is of course very specific to a state-centred geo-political project such as a war and is certainly at extreme odds with anarchism's anti-militarism and anti-nationalism. Indeed, even the idea of competition contained in Boyd's definition of grand strategy is antithetical to the relationships of mutual aid and cooperation. While ideas such as these are common in some business and management accounts of strategy (see, e.g. Carter, Clegg and Kornberger, 2008, p. 9) they are distinctly lacking from Beer's understanding too. He doesn't mention at all competition between firms but instead defines the operations of the firm in terms of viability and handling complexity. In any case, the fact that Boyd defines grand strategy in terms of competition and national interest should not detract from the idea's usefulness in expressing the functional role of System Five in the VSM.

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[45] Interestingly, Boyd's work on military strategy and tactics drew on a similar understanding of complexity as appears in organisational cybernetics and he was influenced by Wiener's mathematical work (see Freedman, 2013, pp. 196-203). Boyd presented his ideas in a large set of presentation slides. The references here to his work are to these slides.

More generally, and more in keeping with how I use these concepts here, Boyd speaks of grand strategy as a 'unifying vision' (2005, slide 144):

> A grand ideal, overarching theme, or noble philosophy that represents a coherent paradigm within which individuals as well as societies can shape and adapt to unfolding circumstances – yet offers a way to expose flaws of competing or adversary systems.

This seems very much in line with the description of the overarching ideologies or goals of social movements described by Maeckelbergh and Graeber above. Social movements scholar Darcy Leach, for example (2009, p. 1050), defines ideology in the context of radical left movements as:

> a collectively held system of beliefs, subjectively taken to be true, which incorporates a theory of how society works, a set of values about the end-states and principles of behavior that should govern society, and a set of attitudes about people, objects, issues, and practices that correspond to those values.

Participatory democracy, mutual aid, environmental sustainability, anti-capitalism, opposition to all forms of domination, oppression and exploitation each make up the grand strategy of radical left groups and movements. Participatory democracy and mutual aid provide the framework within which strategic and tactical decisions can be made that, as Boyd says, allow individuals and groups to 'shape and adapt to unfolding circumstances'. Indeed, the flexibility of prefigurative strategy is key to this. Furthermore, the reference to 'a way to expose the flaws of competing or adversary systems' can be taken, in the context of radical left politics, to refer to the analyses that provide activists with critiques of capitalism and authoritarianism, not to mention social structures such as patriarchy or racism. As Yates suggests, these aspects of radical left grand strategy may be non-negotiable. Beer makes a similar point about System Five of the VSM when he writes that System Five 'provides implied answers to the questions that people are asking' ([1979] 1994, p. 354). In other words, System Five, which functions as the space of grand strategy in the organisation, is the final authority not in

the sense that it dictates orders but that it frames the decisions at the other functional levels within an overall paradigm.[46]

This suggests that grand strategy is something beyond discussion. Indeed, for many of the radical left groups the members of which I spoke to, questions of grand strategy do not come up in meetings. For Anti-Fascistische Actie for example, whether the group should be anti-fascist is a question that simply could not and would not be asked. Grand strategy in many ways acts as the *sine qua non* of these groups. There are, however, cases that came up where grand strategy is a more problematic point in the group either because of disagreements or because of a distinct lack of such an overarching ethos or identity. Timon, of the Vrije Bond, spoke of how he came into that group at a time when it was going through what he described as an 'identity crisis':

> [T]here were different things going on: people wanted to have a more anarchist approach, so be more vocal about anarchist stuff. There was from the Hague or from Haarlem, the local activist political party was a supportive member [of the Vrije Bond federation], which means giving money actually, nothing more. And there were people really opposed to that, saying 'I don't want to be in an anarchist federation with a political party, that doesn't make sense'. And I think that was one of the things we changed in our principles, that we didn't want to have a political party, or people who were the head of a political party or something like that. (Timon, Vrije Bond)

While this discussion has a strategic element (the organisational structure of the group) it also reflects a grand strategy around what will fundamentally define the group. Timon went on to speak about how the group shifted to having 'more of an activist approach and being more outspoken anarchist and since then it became more like some kind of anarchist federation'. This involved a shift in paradigm for the group from a trade union, syndicalist approach to one more in keeping with contemporary social movement and anarchist activism. The fact that this developed through discussion in the group shows that grand strategy is not always beyond question or debate. From an organisational cybernetics perspective, this level of the organisation is a function that people can step into when grand strategy needs to be redefined or rearticulated. So while it may often go un-discussed, an anarchist cybernetics approach shows that there

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[46] For an overview of the idea of organisational identity, see Gioia et al., 2000.

needs to be potential in the organisation for these System Five, grand strategy discussions involving all members of the organisation.

Another context in which grand strategy becomes an explicit area of concern for activists is where there appears to be a distinct lack thereof. Activists I spoke to who were involved in Occupy Amsterdam and Occupy Nijmegen, two of the many Dutch Occupy camps, both described a lack of any common ideology or identity among participants and the problems this caused in terms of strategic and tactical decision making. One, for example, highlighted the grand strategy function as a kind of umbrella that connects different stories and situations (while noting the common anarchist requirement that this should be 'without the need for one big blueprint or something' (Joost, Occupy Nijmegen)). This umbrella was missing from Occupy Nijmegen, a lack that

> makes organising and communicating problematic because people don't always understand each other's intentions and then it becomes hard to identify the common ground.

Occupy Amsterdam suffered from a similar lack of a unified identity in that there was a diversity of positions and ideologies without space for discussing anything like grand strategy and how that would influence the strategy and tactics of the camp: 'there wasn't some group or organisation or some particular sort of ideology being articulated clearly as "this is the problem, this is the solution"' (Mark, SAP and Occupy Amsterdam). While diversity such as this can be identified as a strength of Occupy in that it allowed for lots of people to come together in the camps, in Amsterdam and Nijmegen at least, it led to 'an unwillingness to have political conversation in groups' (Mark, SAP and Occupy Amsterdam). Mark was insistent that

> we really have to talk a lot on a systematic level about what's happening and debate that, and we really have to talk seriously about how can you build a movement that can grow and be sustained and the role of strategy and tactics in that.

Mark was one of the few activists I interviewed who explicitly referred to strategy and tactics and in this quotation he clearly points to something like a grand strategy within

which strategy and tactics are framed. It is this grand strategy that he saw as missing from Occupy Amsterdam.

So while grand strategy might operate in many groups as an overarching, non-negotiable paradigm Maeckeblergh and others talk about, it is clear from these two examples that it is something that in certain situations needs to be talked about. The meetings and assemblies that take place in radical left groups are the ideal sites for these discussions of grand strategy. This System Five function needs to be able to be enacted in these organisations, even if it more often than not remains in the background proving an overall framework for strategic and tactical discussions. For Beer's organisational cybernetics, these System Five functions are handled by executives, but from an anarchist cybernetics perspective and indeed from Beer's own engagement with Project Cybersyn in Chile, it is clear that there is a more participatory alternative when it comes to System Five and grand strategy (see e.g. Medina, 2011, p. 75; in fact, a commitment to democracy and freedom often operates as a grand strategy in Beer's own writings and work, see Pickering, 2010, p. 263)).

6.5 Conclusion

I have argued in this chapter that the ways in which radical left groups organise, through democratic and participatory mechanisms, can be helpfully understood along the lines suggest by Beer's organisational cybernetics and, more specifically, his division of any viable system or organisation into two broad parts. On the one hand, the lower levels of the organisation are those engaged in the day-to-day operations, completing tasks and responding to situations as they develop. This they do with a degree of autonomy. On the other hand, there are the metasystem elements of the organisation, those involved in defining the goals that autonomous operations contribute towards. But this higher level can itself be divided into two, with one part focussed on achievable goals and the other dealing with the paradigmatic worldview that sets out the overarching trajectory of the organisation. The way I have tried to explain these distinctions is through the tripartite division between tactics (the autonomous operations of Systems One and Two of the VSM – the ability activists and local working groups have to make their own decisions), strategy (the setting of goals and regulation of tactics towards these goals by Systems

Three and Four – the discussions at assemblies and meetings that frames tactical autonomy within the overall goals of the group or movement) and grand strategy (the System Five function of the VSM that sets the ethos or identity for the organisation – the anti-capitalist, anti-domination and anti-exploitation paradigms that provide a framework for the goals of radical left groups).

The language used here, of tactics and strategy, might be somewhat unpalatable in the context of radical left politics. The application of the discourse of strategy to organisations more generally emerged following the Second World War when former military personnel returned to the business of managing (see e.g. Mirowski, 2002, p. 58). Indeed, Beer developed his work on operations management in the Indian Army (then part of the British Army), and the concept of grand strategy introduced above comes directly from military theory in the work of John Boyd. In the military context, tactics and strategy have different connotations than might be suggested by how I have presented them here, being associated with a rigid command and control structure with generals at the top and others at the bottom following orders as they come down the chain (e.g. Levy et al., 2003, p. 98; see Mutch, 2006 for an alternative perspective). This raises the spectre of authoritarianism in relation to organisational cybernetics. One objection to Beer's work is that it creates centralised, Big Brother-esque structures that harvest information, process it and send out commands to other parts of the organisation (e.g. Ulrich, 1981; Willmott, 1997a). Is this a valid critique? And does it apply to anarchist cybernetics?

Hopefully, I have shown that the answer to both of these has to be negative. For Beer, organisational cybernetics is about defining the necessary and sufficient conditions, based on the need to handle complexity, for viable organisation. This does not need to result in a centralised, bureaucratic and authoritarian structure but can be grounded in one that relies on autonomy. By formulating an anarchist cybernetics, I want to show that while Beer maintains the basic structure of capitalist enterprise, with a middle management layer and a senior executive level at the top, these are not necessary for viability. This is the core difference between Beer's cybernetics and the anarchist cybernetics I am arguing for here. To give Beer the credit he is due, his account of how organisations should determine goals does touch on non-hierarchical processes, as Pickering argues (2010: 272). Anarchist cybernetics shows how tactics, strategy and

grand strategy can be articulated in participatory and democratic ways. In Chapter 2, in the course of discussing the idea of complexity in cybernetics, the firm was highlighted as the example of an exceedingly complex and probabilistic entity. While Beer seems to take the firm as a generic example of social organisation, in the following chapter I will expand on the distinction between the firm and other hierarchical organisations, on the one hand, and radical left and anarchist organisation, on the other. While both share the functional necessary conditions for viable organisation, radical left and anarchist organisation mirror these conditions (tactical autonomy with strategic and grand strategic frameworks) in ethical and political ways that firms do not. As well as functionality, one side of the anarchist coin, anarchist cybernetics helps articulate the ethical and political objection to authority and exploitation, the other side of the coin.

Chapter 7 : Autonomy, Cohesion and Exclusion

7.1 Introduction

Autonomy is crucial to both organisational cybernetic and anarchist and radical left politics. For anarchist cybernetics, in its attempt to understand what happens at the various functional levels of anarchist organisation, autonomy is a core concept and needs to be approached in a way that brings together the restricted autonomy of cybernetics and the (supposedly) unrestricted autonomy of anarchism.

I will start by discussing in more detail how autonomy figures in organisational cybernetics. On the face of it, this poses a challenge to how anarchists and other radical leftists view autonomy in so far as it suggests an account of autonomy as a constrained space created within organisational forms. I will try to show that a modified understanding of autonomy, that is consistent with an anarchist cybernetic position, is in fact supported by how activists speak of the idea. Both in theory and in practice, an anarchist cybernetic account of autonomy, which comprises two elements that I will define as *Functional Autonomy* and *Anarchist Ethical and Political Autonomy* (and which will be contrasted with *Liberal Ethical and Political Autonomy*), holds up within both the Viable System Model and within anarchist ideas of organisation. Crucial to how autonomy exists and operates in anarchist cybernetic organisation, and indeed in anarchist organisation more generally, I will argue, is the processes of decision making activists engage in and, ultimately, the aim of reaching consensus in these decisions. In the final section of this chapter I will highlight the possible role exclusion may, or may have to, play in anarchist cybernetics and the challenge this throws up to conventional thinking on anarchism and inclusivity.

7.2 Autonomy in Organisational Cybernetics

In Beer's work, autonomy is held up as the linchpin of effective organisation. Recognising the complexity that organisations face, both externally in the environments they find themselves in and due to changing situations within the organisation itself, Beer argues that a high level of flexibility is needed. The operating units of any organisation need to be able to respond to changes fast and with the specific knowledge and skills they have in their own niches. Beer writes, for example, (1967, pp. 219-220) that

> [i]t is clear that large areas of any organisation will and should be autonomous. […] If every aspect of business, every smallest decision, had to be thought about consciously at the senior management level then obviously the form would grind to a halt.

The previous chapter, however, pointed towards the need for strategic and grand strategic frameworks within which to situate tactical autonomy. Just as important as autonomy, for organisational cybernetics and, as I will discuss below, radical left and anarchist organisation, is a certain level of centralisation or 'managerial constraint' that limits the autonomy of tactical, operating units. Beer highlights three such constraints ([1981] 1994, pp. 158-162): (1) autonomous parts must operate within the intentions of the whole organisation; (2) autonomous parts must operate in co-ordination with other autonomous parts; and (3) autonomous parts must face the possibility of being excluded from the organisation as a whole. I have tried to bring these constraints on autonomy together in Table 4 below, adding them to an overall account of the VSM:

Functionally lower operating system	System One	Tactics	Autonomous operating in environmental niches	Autonomy
	System Two		Coordination between autonomous units	Constraint on autonomy (2): coordination with other autonomous parts
Functionally higher metasystem	System Three	Strategy	Internal, organisation-focussed regulation in line with overall goals – looking at current situation of organisation	Constraints on autonomy (1) and (3): operating within intentions of whole organisation; facing possibility of being excluded from organisation
	System Four		External, environment-focussed regulation in line with overall goals – looking at future situation(s) of organisation	
	System Five	Grand Strategy	Overarching identity or ethos that defines the organisation	

Table 4: The Viable Systems Model seen in terms of tactics, strategy and grand strategy and in terms of constraints on autonomy.

7.2.1 Three Constraints on Autonomy

The first constraint on autonomy Beer highlights is that the autonomous parts of the organisation must operate '*within the intention of the whole*' organisation (ibid., p. 159, emphasis in original). The strategic and grand strategic goals of the organisation as a whole are those that are defined and negotiated at the functionally higher levels of the organisation. Tactical choice is defined in relation to and limited by strategic and grand strategic positions. It is here, Beer argues, that autonomy is to be found and, crucially, constrained. In the functional hierarchy of the VSM, and indeed of the anarchist VSM, tactical autonomy is not absolute freedom to choose any tactics at all but a *restricted choice* as determined by the higher levels.

The second constraint Beer underlines is that individual parts of the organisation should recognise the fact that other parts also exist and are also essential to the overall organisation. There needs to be, Beer writes, a '*co-ordinating framework*' (ibid., p, 160, emphasis in original) between individual parts of the organisation so that the autonomous (but restricted) actions of one does not impact negatively on the actions of others. For Beer, this framework is built around communication practices involving these different parts. Importantly, this co-ordination is not co-operation. The individual units operate with an awareness of the others and work out a space within which they can work in their own niches, but they do not work towards common goals.

The third and final constraint Beer identifies is a perhaps controversial one, especially when it comes to radical left and anarchist organisation. Individual operating parts, according to organisational cybernetics, must face the potential that the ultimate restriction on autonomy be applied to them. In other words, they must, Beer stresses, accept that they may well be excluded entirely from the organisation in the name of the viability of the whole. If those at functionally higher levels of the organisation, those involved in developing strategy and grand strategy, come to the conclusion that one part is threatening the viability of the whole, the possibility must remain that this part should be excluded as a result. While this consequentialist reasoning (weighing the needs of the many against those of the few (see e.g. Medina, 2011, pp. 40, 214)) might seem completely at odds with radical left and anarchist approaches to organisation, if Beer's VSM is to be expanded within the framework of anarchist cybernetics, this is a crucial point that must be addressed. As I will discuss below, such dramatic restrictions on autonomy may figure in radical left and anarchist organisation.

These restrictions on autonomy come down to Beer's dictum that the part of an organisation, be it an individual member or a sub-group, can '"do what it likes" within just one limitation: it continues to belong' (ibid., p. 159). For organisational cybernetics, this is about a balance between autonomy and centralisation. An organisation that leans too far to one side or the other will not be viable. It will be either too rigid to respond to complexity and change or it will be too loose and fluid and the operational units will diverge from the organisational priorities and the organisation as a whole cannot be said to exist. As Eden Medina puts it in her study of Project Cybersyn, 'cybernetic

management approached the control problem in a way that preserved a degree of freedom and autonomy for the parts without sacrificing the stability of the whole' (2011, p. 29). The idea of a balance between autonomy and centralisation is crucial here, both for Beer's work and for anarchist cybernetics (see Duda, 2012, p. 215).

7.2.2 Functional Autonomy

Beer writes of the opposition between centralisation and decentralisation (1967: 223; see also [1981] 1994, pp. 75-76), that

> the [cybernetic] model shows how naïve that dichotomy is as an organisational description. No viable organism is either centralised or decentralised. It is both things at once, in different dimensions.

Similarly, Beer states that 'the polarity between centralisation and decentralisation – one masquerading as oppression and the other as freedom – is a myth' (1973, p. 6). According to Beer, a viable organisation will determine a maximum level of autonomy in order to remain viable, balancing the need for autonomous flexibility and the need for organisational centralisation in terms of overall goals (see also Pickering, 2010, p. 263). In a speech he gave after his experiences in Chile, he defined this as 'effective freedom', arguing that 'the degree of autonomy, and its complement degree of centralisation, are computable functions of viability' (ibid., p. 16).[47] Just as the hierarchy in cybernetics is a functional one, the same is true of autonomy; it is a function of a viable organisation and it has limits that are defined in that context.

In organisational cybernetics, autonomy is a purely *descriptive* notion; it is a function of a well-operating and viable system or organisation. The aim of organisational cybernetics as being to '*design* autonomy according to cybernetic principles' ([1987]

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[47] For Beer this went as far as claiming, as Medina highlights, '(1) that freedom was something that could be calculated and (2) that freedom should be quantitatively circumscribed to ensure the stability of the overall system' (2011: 181). I haven't stressed this calculability in the present discussion because in terms of anarchist cybernetics, as I will show, the 'effective freedom' arrived at has more to do with negotiation between members of an organisation than computation or calculation.

1994, p. 19, emphasis in original) in no way relate to the political or normative conceptualisations of autonomy common to anarchist thought: '[i]f a system regulates itself by subtracting *at all times* as little horizontal variety as is necessary to maintain the cohesion of the total system, then the condition of autonomy prevails' ([1974] 1994, p. 322).

For example, picture a café that aims to make sandwiches based on customers' preferences. Someone working there might have no autonomy and be bound by the rules of her or his employment to offer only one kind of sandwich: hummus and roast vegetables. This would be an incredibly rigid organisation which, firstly, allowed employees no autonomy and, secondly, was unable to respond effectively to the variety in the environment (the customers' diverse preferences). If, on the other hand, the employee was able to offer anything at all to the customers (from different kinds of sandwiches to bike maintenance, massages, personalised poems or financial services) this would be an incredibly flexible organisation which, firstly, allowed employees so much autonomy that they could not really be said to belong to a single organisation and, secondly, was so responsive to variety that it would not exist as a definable organisation but as a set of responses to an immense amount of variety. The functional balance between these, Beer is suggesting, comes from subtracting the amount of variety at these operational levels while not going so far as to exclude it altogether. Sticking with this example, the café might reduce the autonomy employees are able to enjoy while at the same time reducing the possible responses to variety. So the employee might be able to decide for her or himself how best to respond to the customers' preferences and to do so by choosing from a range of sandwich fillings. Both the variety and the potential autonomy have been reduced from the overly-flexible example but are greater than in the overly-rigid one. This is the definition of autonomy Beer is interested in.

The specific form of autonomy Beer is speaking of, therefore, is one that can only be said to exist in the context of a viable organisation. This is something 'distinct from the ethical, political, or psychological arguments' ([1979] 1994, p. 158, see also p. 202); instead it is something purely constructed within the functioning of the system or organisation described and analysed by cyberneticians. In *Heart of the Enterprise*, for example, Beer argues that it is doubtful as to '*whether the basic notion of freedom can legitimately be considered outside the confines of some institutional framework*' (ibid.,

p. 141, emphasis in original). The absolute character of freedom or autonomy is abandoned (ibid., p. 142) in favour of the functional character of the mechanism that is situated within a viable organisation.[48]

This is not to say that Beer or other cyberneticians were not concerned with freedom as an ideal but simply that in terms of defining viability, the autonomy or freedom at work is a functional one. The promise of anarchist cybernetics, what I have described above as the two sides of the anarchist coin, is that this functional autonomy can and does in fact overlap with the normative ideal of autonomy and that while one is prioritised in accounts of viable organisation this does not mean that the other is excluded either from theory or practice. While Beer does point to how the centralisation side of this balance can be achieved through participation and democratic decision making ([1981] 1994, pp. 161-162; see also Medina, 2011, pp. 75, 93), worker self-management of industry (1972a) and a more direct form of parliamentary democracy (1972b), his thought on organisational cybernetics and the VSM does not go far enough in showing the potential of the centralising function of viable organisation to be fulfilled in ways that also overlap with the normative ideal of autonomy.

With this in mind, a definition of autonomy, from an organisational cybernetics perspective, can be offered:

> *Functional Autonomy*: the degree of flexibility an individual or a sub-group within an organisation has to respond to complexity as they see fit while remaining within constraints set by their relationship to other sub-groups and individuals, the goals of the organisation as a whole and the potential of being expelled from the organisation.

This definition should be taken as applying only to autonomy in a viable system and is the minimal necessary and sufficient definition that applies to organisational cybernetics. It is the least we can say about autonomy from an organisational cybernetics standpoint for it to be a meaningful concept. Given that this seems so at odds with the accounts of autonomy and freedom brought to mind when one thinks of radical left and anarchist organisation, the question needs to be raised as to whether

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[48] See Murray Bookchin (1995) for a discussion of the distinction between 'freedom' and 'autonomy'. Here, however, I use them as Beer does, synonymously.

anarchist cybernetics can be said to be consistent with the anarchism found in radical left movements. In the following sections, I want to draw on the discussions I had with radical left activists to try and answer this question.

7.3 Autonomy in Anarchist and Radical Left Groups

Beer challenges what he describes as the 'anarchist' view of autonomy as incompatible with how autonomy is characterised in organisational cybernetics ([1979] 1994, p. 156)[49]. Based on the discussions in the previous chapters it should be clear that this depiction of anarchism, as an extreme individualism which aims to eliminate all restrictions on autonomy, is inaccurate. There are, however, tendencies in anarchist thought that point towards a kind of autonomy that may well be incompatible with the constrained autonomy of organisational cybernetics. Bakunin, for example, described himself as a 'fanatical lover of liberty'; and while he decried the 'individualist, egoist, base, and fraudulent liberty' of 'bourgeois liberalism', he nonetheless championed 'the liberty which knows no other restrictions but those set by the laws of our own nature'. 'Consequently', he went on, 'there are, properly speaking, no restrictions, since these laws are not imposed on us by any legislator from outside, alongside, or above ourselves' ([1972] 1871, pp. 261-262). Similar approaches to freedom and autonomy can be found in other anarchist writers and activists such as Emma Goldman and in the work of philosophers (perhaps controversially) linked to the anarchist tradition including Max Stirner and Friedrich Nietzsche (see e.g. Kaulingfreeks, 2005).

While the *Functional Autonomy* of cybernetics is a different thing entirely from the ethical and political autonomy of anarchism, developing an anarchist cybernetics does entail that there is an overlap between the two and that in practice they manifest as the same phenomena. So while the idea of ethical and political autonomy may be formally distinct from that of a *Functional Autonomy*, in an organisational setting they need to overlap. Were an organisational form to be based on unrestricted ethical and political autonomy in which every individual member could do whatever they want, this would

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[49] Indeed, this is one of the few places Beer makes reference to anarchism and as in the lecture 'Laws of Anarchy' (2009), quoted from in Chapter 3, he uses it in the pejorative sense to refer to a complete rejection of organisational constraint, as does Norbert Wiener (1961, p. 162).

have consequences for the restricted functional autonomy required according to an organisational cybernetic analysis. In effect, an unrestricted ethical and political autonomy would make a restricted functional autonomy impossible and would result in a fractured, unviable organisation. This is true, as well, for anarchist cybernetics. If anarchism does, as Beer seems to think, promote an unrestricted ethical and political autonomy, then this throws into doubt the very possibility of an anarchist cybernetics. Perhaps anarchism's love of liberty, if translated as a love of unrestricted ethical and political autonomy, makes anarchism as a whole incompatible with organisational cybernetics, despite what has been argued in previous chapters. On the other hand, as the discussion in Chapter 6 of tactics, strategy and grand strategy showed, restrictions on tactical choice, when democratically agreed-upon, are in fact perfectly consistent with anarchism and with the practices of the radical left activists I have spoken to. If this is the case, then what needs to be challenged is not the validity of anarchist cybernetics, but the alleged anarchist commitment to unrestricted ethical and political autonomy.

7.3.1 Liberal Ethical and Political Autonomy

An *Anarchist Ethical and Political Economy* that is consistent with the *Functional Autonomy* of cybernetics must, therefore, be defined against an unrestricted ethical and political autonomy. Such an account of unrestricted autonomy has some support in the anarchist literature, as suggested above. Notably, Goldman ([1910] 1969, p. 58) argues that

> the individual is the heart of the society, conserving the essence of social life; society is the lungs which are distributing the element to keep the life essence – that is, the individual – pure and strong.

In other words, the anarchist political project starts with a completely free and unrestricted individual and from there moves to define social structures of collective organisation that ought to support this individual autonomy. Goldman's anarchism can be perhaps best summed up in the following quotation (quoted in Schmidt and van der Walt, 2009, p. 245):

> I will only accept anarchist organisation on one condition: it is that it should be based on absolute respect for all individual initiatives and should not hamper their free play and development. The essential principle of anarchism is individual autonomy.

Despite the importance of Goldman in the anarchist tradition, this account can in fact be linked more closely to liberalism (as Murray Bookchin argues of Goldman's anarchism: Bookchin, 1995). John Stuart Mill, for example, defines a free, autonomous individual as one who 'acts according to his [sic] own inclination and judgement in things which concern himself' (1977, p. 119). More recently, philosopher Gerald Dworkin has characterised autonomy as referring to 'a notion of the self which is to be respected, left unmanipulated, and which is, in certain ways, independent and self-determining' (1988, pp. 11-12; see also, e.g. Berlin, 1969; Pettit, 1988; Christman, 2001). Social geographers Jenny Pickerill and Paul Chatterton link this 'free-floating individual with highly egoistic desires' to 'market interactions between rational, autonomous and self-interested individuals' and 'modern-day consumer societies' (2006, p. 733; see also Dean, 2013, p. 55).

This version of autonomy can be defined as *Liberal Ethical and Political Autonomy*:

> *Liberal Ethical and Political Autonomy:* the ability and scope an individual has to decide and act, using inherent human faculties, free of external constraint.

This is not, however, an anarchist position expressed by the activists I interviewed.

7.3.2 Against Individualism

For many of the radical left activists I spoke to, autonomy was not about an unrestricted liberty to act on one's individual 'desires, tastes and inclinations', as Goldman puts it (1969 (1910): 58). Mark, active in the SAP and in Occupy Amsterdam, who's account of strategy and tactics figured heavily in the previous chapter, was critical of what he saw as a 'dominant theme' in Occupy Amsterdam of proclaiming, 'we're individuals and we'll do our own thing' (Mark, SAP and Occupy Amsterdam). This does indeed seem to chime with certain strands of Goldman's and other more individualist anarchists' thought. For Goldman's blending of anarchist and Nietzschean ideas, what

was at the foundation of radical action was 'a commitment to an ethos of dissent and creativity' (Rossdale, 2015, p. 122). Her anarchism was one of individual self-expression and self-creation and elements thereof can be seen in the statement of some Occupy Amsterdam activists that '[we] don't want to put limitations around who we are and what we're doing' (as reported by Mark, SAP and Occupy Amsterdam). The positions of these Occupy activists and of Goldman share, and importantly together share with liberalism, an approach to politics that situates the individual at the centre.

This is what Mark described as the 'problem of autonomy': that political organisation comes down to supporting individual autonomy. Indeed, Goldman does not object to collective organisation but only puts the autonomous individual at the centre and, importantly, puts collective organisation at the service of this autonomous individual. Other activists I interviewed made similar points as Mark, such as Doorbraak member Eva, who rejected both the hierarchical, dogmatic approach to communism and the individualist, lifestylist approach to anarchism (Eva, Doorbaak). Anton, also a SAP member, similarly expressed this critique of an activism where 'you can pick and choose what you want to participate in' without an organisational form that requires responsibility and creates obligations of its members (Anton, SAP). This critique of individualism, and, more importantly, of collective organisation as a vehicle for individual autonomy, is common in the anarchist tradition (see Kinna, 2005, pp. 16-23; Bookchin, 1995; Bray, 2013, pp. 91-94). At the same time, it also has support among some important contemporary exponents of anarchism such as the collective CrimethInc (see Gordon, 2008, pp. 39-40). Anarchist studies scholars Michael Schmidt and Lucien van der Walt go so far as to exclude positions that focus on individual autonomy as the basis of radical politics from the anarchist tradition entirely (2009: 247). But if many anarchists reject taking individual autonomy as the starting point of their political project, why then does it still feature so heavily? For anarchists like Kropotkin (e.g. 1910), rejecting the ideas of liberals on autonomy does not equate to excluding every role individual autonomy might play in anarchist organisation. Nor does it mean refusing to place an immense value on individual autonomy.

Many of the radical left and anarchist activists I interviewed did highlight autonomy within organisational structures as being an important element of their politics, including those cited above who rejected the individualism associated with liberal and

some anarchist thinkers. For the most part, activists were interested in speaking about the autonomy of sub-groups and local working groups within larger organisations or federations. For example, in describing the organisational structure of Anti-Fascistische Actie (AFA), Thijs said that 'AFA was made out of local groups that were all autonomous. […] They could do whatever they want within the anti-fascist guidelines' (Thijs, AFA). Similarly, Timon of the Vrije Bond reported that individual local and working groups within the federation 'have their own campaigns' that are autonomous of any agreed-upon national structures (Thijs, Vrije Bond). GroenFront! is again made up of local working groups that operate in specific areas and on specific issues. GroenFront! activist Paul spoke of one campaign against a proposed train line during which they 'basically had three clusters of occupations in three villages and they were basically autonomous and they had their own differences and their own nuances' (Paul, GroenFront!).

Where autonomy does figure in anarchist organisation, on this account, it is not an individual autonomy but the autonomy of local working groups and it is not something that precedes organisation but is a part of it. This last point is worth expanding upon. Before doing so it is worth noting that this suggests an ontological position on autonomy that differs from liberal thought. In so far as liberalism and Goldman's anarchism focus on the individual as being autonomous, and in taking this as the starting point of their political projects, they can be said to subscribe to an ontological individualism. The alternative approach common to other strands of anarchist thought could be said to be an ontological collectivism in the sense that the basic facts of reality are connected to collectivity (this is present in the ontologies of cybernetics and anarchism discussed in Chapter 4).

7.3.3 German Autonomen and Anarchist Ethical and Political Autonomy

One of the strongest influences on the Dutch radical left in the last three decades has been the German *Autonome* movement (Katsiaficas, 2006, pp. 111-116), and it is also here that an anarchist account of ethical political autonomy that departs from the individualism of the liberal account is best elaborated. While the German *Autonomen* developed out of an interaction between the German radical left and the Italian

Autonomist Marxists, their approaches to autonomy differ. For the Autonomist Marxists autonomy refers more to the way in which the working class and other exploited and oppressed groups develop historically, autonomous of the development of capitalism.[50] For the German *Autonome* movement, autonomy is used more to express the freedom or liberty that parts of the movement, or certain groups, have in choosing how they engage in political struggle. The *Autonome* feminist activist and writer Marie-Therese Knapper, for example, writes that '[w]ithin the movement, autonomy means primarily decentralization, autonomy of every single group' (quoted in Katsiaficas, 2001, p. 549). Crucially it is not the autonomy of individuals but a collective autonomy of groups from larger structures that is at work. Writing along these lines, George Katsiaficas defines autonomy specifically in relation to a 'we' rather than an 'I' (2006, p. 258; see also Leach, 2009). *Anarchist Ethical and Political Autonomy* is, therefore, an autonomy within organisational structures rather than the individualism of *Liberal Ethical and Political Autonomy*.

Despite the focus in these descriptions on collective organisation and collective autonomy, this does not mean that there is no role for individuals in political action or that individuals are subsumed in collectives (Katsiaficas, 1989: 3). What it does do is rejects the attribution of autonomy to individual human beings, locating it instead in those instances when individuals act collectively. This means that ethical and political autonomy – whether expressed by sub-groupings like the local working groups of the radical left organisations I discuss throughout this thesis, or the individual members of these organisations – is a product of collective organisation. It issues forth only from those instances where individuals come together and act towards collective goals. *Autonome* activist Geronimo (2012, p. 19) quotes Bobo Schulze to this effect in defining autonomy as an aspect of organisational relationships:

> "Autonomy" is a fragile thing. Or rather: autonomy is no thing at all. It stands for a certain form of relationship between people who associate in order to destroy all forms of oppression. It is a

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[50] Traditional Marxist analysis has it that the working class develops as a product of capitalist exploitation and accumulation. Autonomist Marxism turned this on its head and argued that capitalism develops in fact in response to working class struggle and the struggle of other exploited and oppressed groups (e.g. women and migrants) (see e.g. Böhm, Dinerstein and Spicer, 2010; Eden, 2012). Nonetheless, in Autonomous Marxism there is still a strong tradition of self-determination and self-organisation and so in practice it is not so distinct from anarchist approaches to autonomy (e.g. Gautney, 2009; Franks, 2012).

relationship that cannot be grasped theoretically. Theories can only be formulated about phenomena that exist in and by themselves. "Autonomy" only exists when people start to be active revolutionaries.

Katsiaficas' words are very clear on this point. In a passage that links up with my characterisation of *Liberal Ethical and Political Autonomy* as an ontological individualism, he writes the following that suggests just how different the notion of an *Anarchist Ethical and Political Autonomy* may be (2006, p. 259):

> My ontology is that thousands of people acting in social movements embody the concrete realization of freedom: Outside established norms and institutions, thousands of people consciously act spontaneously in concert. In such moments […], genuine individuality emerges as human beings situate themselves in collective contexts that negate their individualism.

By ontology, Katsiaficas here refers to the fundamental social nature of autonomy. This runs in strikingly parallel with Kropotkin's belief that through anarchism people would 'be able to reach full *individualization*, which is not possible […] under the present system of *individualism*' (1910, emphasis in original; see also Bookchin, 1995). So an *Anarchist Ethical and Political Autonomy* is based on the ontological position that self-expression and self-development are not products of individual human beings that can then be supported by collective organisation but are products of collective organisation itself. As Pickerill and Chatterton put it, 'autonomy is a collective project fulfilled only through reciprocal and mutually agreed relations with others' (2006, p. 733).

While this may seem controversial, in fact it was a shift in the other direction, away from collective and towards individual autonomy, that originally introduced the idea of individual autonomy as being the foundation of politics. As Dworkin points out, the Ancient Greek concept of 'autonomia' originally referred not to individuals but to the city state or the polis. 'A city', he writes, 'had *autonomia* when its citizens made their own laws, as opposed to being under the control of some conquering power' (1988, pp. 12-13). The kind of collective autonomy suggested by the German *Autonome* movement and the radical left activists I interviewed in fact sits somewhere between these (Katsiaficas describes it as a dialectic between individualism and collectivism (2014, p.

332)[51]). Darcy Leach argues similarly that autonomy is about 'balancing collective responsibility and solidarity against the right of self-determination' (2009, p. 1057). Interestingly, this echoes Beer's demand that viable organisation focus on balancing autonomy and centralisation.

This move to defining *Anarchist Ethical and Political Autonomy* within collective, organisational structures, as something that is in fact produced by these structures, has important consequences that relate to another aspect of the liberal account of autonomy. As well as being based on an essential, ontological individualism that precedes organisation, *Liberal Ethical and Political Autonomy* also holds that autonomy should be as unrestricted as possible. In so far as collective organisation is valued, it should aim at the minimal level of constraint that allows for a maximum level of individual free choice. Indeed, it is this constraint that acts as the external scaffolding that helps construct autonomy. Given that *Anarchist Ethical and Political Autonomy* is defined within organisational structures, this suggests that the idea of restriction needs to be re-articulated. Rather than seeing restrictions as binds that are attached to autonomy, to limit it, restriction is instead seen as part of the process that produces autonomy itself. Indeed, if collective organisation implies restriction on its members and, as the discussion of tactics in the previous chapter showed, a lack of constraint or common purpose results in an effective lack of organisation, then any autonomy that is produced by collective organisation is going to be defined in relation to these restrictions. While such an ethical and political autonomy does overlap with the cybernetic account of *Functional Autonomy*, as I suggested it must for anarchist cybernetics to make sense, it might still be too much of a departure from how anarchists view freedom. It might suggest a negation of individuality rather than an individuality that goes beyond individualism. In the following section I will take up this challenge. For now, let the following definition of *Anarchist Ethical and Political Autonomy* stand:

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[51] A similar notion to this might be that of 'collective individualism' introduced by Charlotte Baarts (2009) and based on the work of Marianne Gullestad (1992). This too refers to a 'negotiation' or 'balancing act' between individualism and collectivism such that 'the scope of individualism seems to be defined by the extent of conformity with the standards of the community and […] consensus' (Baarts, 2009, p. 955). Perhaps more relevant still is the work of classical sociologist Georg Simmel on individuality, where the individualisation of people and the autonomy they may have is dependent on social structures (e.g. Simmel, 1971; see also Honneth, 2004). David M. Bell similarly highlights the role of the individual as a collective outcome in the context of anarchism and musical improvisation (2014, pp. 1016-1017).

Anarchist Ethical and Political Autonomy: the collectively-determined ability and scope an individual or group has to decide and act within the constraints set by collective organisation.

Crucially, this reframes the question of autonomy and centralisation. For liberals and anarchists like Goldman, there exists an antagonistic relationship between autonomy and constraint, with the latter seen as a necessary evil. For the activists I spoke to, and for an anarchist cybernetics that takes seriously the commitment to cybernetic viability and the freedom championed by anarchism, this relationship is shifted from 'autonomy *versus* constrain' to 'autonomy *and* constrain'. For anarchist cybernetics, with its concern for functional as well as ethical and political autonomy, this is, then, an autonomy that depends on constraint for its very existence. As well as this, a connection can be made to the idea of prefiguration discussed in the previous chapter and elsewhere. The autonomy, both descriptive and normative, at the heart of anarchist and radical left organisation is something that must be enacted in the here and now. Importantly, this is true too for cybernetics, whereby *Functional Autonomy* is a necessary condition for viable organisation to pertain. It exists as a goal that must be constantly realised.

Before moving on, I want to make an important point about the distinction between general social organisation, on the one hand, and radical left and anarchist organisation, on the other. Beer's comments about functional autonomy come in the context of his discussion of the effective and viable organisation of the firm. What I am doing here is transposing these comments to a quite different context, that of radical left anarchist organisation. If what holds true in terms of the firm also holds true in terms of these other forms of organisation, is there any hard, qualitative distinction between the two? To see why there most definitely is, I need to return to the notion of there being two sides to the anarchist coin. One side is represented by effective organisation, organisation that achieves goals. It is this side to which Beer's functional autonomy applies and if this were the whole story there would be little difference, from this perspective between the firm and radical left and anarchist organisation. The other side of the anarchist coin, however, is represented by the commitment to ethical and political autonomy. As Beer makes clear, his account of the firm does not have ethical and political autonomy as a necessary condition. For anarchist and radical left organisation,

both functional autonomy *and* ethical and political autonomy are necessary conditions. This, then, is the qualitative distinction that separates radical left and anarchist organisation from more general accounts of social organisation and from Beer's account of the firm.

7.4 Consensus Decision Making, Vetoing and Standing Aside

One Doorbraak activist I interviewed noted that individual members and local branches of the organisation have a 'mandate' to be active in areas and ways they see as most appropriate (Evert, Doorbraak). This perhaps sums up the claim of the previous section that an *Anarchist Ethical and Political Autonomy* is an autonomy that is produced in the context of radical left and anarchist organisation and which, crucially, is restricted by overarching organisational decisions. Just as tactical choice is constrained and in part determined by strategic and grand strategic frameworks, so too is autonomy subject to functionally higher levels of decision making. With this account of autonomy in place, I want now to consider briefly some of the concrete practices of participatory, democratic decision making that these organisations enact. Alongside processes such as knowledge- and skill-sharing that aim to empower people to being autonomous within organisational structures there are also mechanisms of explicit coercion as a last resort to limit autonomy when it becomes dangerous, with the potential threat of exclusion (as Beer's formulation of autonomy suggests too).[52] In addition, the more common radical left and anarchist practice of consensus decision making is central to articulating collective autonomy. It presents both the constraints that help generate *Anarchist Ethical and Political Autonomy* as well as some of the tensions that suggest the ways in which such a process might not be as unproblematic as I have suggested above.

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[52] Here the tranquillity or security teams of protest camps are important examples that show how anarchist and radical left organisation, which rejects illegitimate coercion may well accept legitimate coercion when it is part of participatory and democratic organisational forms (see, e.g. Feigenbaum, Frenzel and McCurdy, 2013, pp. 213-214; Schmidt and van der Walt, 2009, p. 33).

7.4.1 Consensus Decision Making

While vetoing and standing aside are in fact considered parts of consensus decision making (CDM), I will here treat them separately so as to focus on how the different mechanisms operate. The Seeds for Change collective (which is a common source of CDM practice cited by activists and scholars alike) define CDM as follows (Seeds for Change, 2013; see Starhawk, 2011 for a similar formulation and Graeber, 2004; Maeckelbergh, 2009; Bray, 2013 among others for accounts of CDM in practice):

> Consensus decision making is a creative and dynamic way of reaching agreement between all members of a group. Instead of simply voting for an item and having the majority of the group getting their way, a group using consensus is committed to finding solutions that everyone actively supports, or at least can live with.

CDM is of course used by activists in order to reach broad agreements on both principles and specific actions (i.e. on strategy and tactics). I am more interested, however, in the extent to which, as anarchist studies scholar and activist Matthew Wilson puts it, 'the *process* used by practitioners can be disentangled from the need to in fact *reach consensus*' (2014, p. 151, italics in original). This points towards how the mechanisms of CDM can operate to regulate and restrict individualism while creating a space for *Anarchist Ethical and Political Autonomy*.

Samuel, an activist involved in the Dutch section of the Spanish Indignados movement (which, made up mainly of Spanish migrants, held participatory assemblies in the Netherlands before the Dutch Occupy movement emerged) and Occupy Amsterdam, described CDM approaches in relation not only to greater democracy but also of countering individualism: 'in decision making by consensus it's not about "I have a position and you have another position and then we argue until one is convinced by the other"' (Samuel, Indignados and Occupy Amsterdam). Rather, with CDM everyone is entitled to speak and, ideally, an agreement emerges from open, participatory discussion. The agreement is not an agreement that one person's position is correct but is one that involves all who participate and is reflective of all their concerns. This opposition to *Liberal Ethical and Political Autonomy* (in which individuals try to maximise their own autonomy or impose their will on others) is also present in feminist

critiques of liberal individualism. Allison Jaggar (1985; see also Friedman, 2000), for example, argues that the kinds of relationship associated with liberal individualism are typical of a masculine or macho form of behaviour that is at odds with a focus on care and mutual respect. CDM, therefore, as well as being aimed at achieving agreement, can also be seen as a structure for relationships and interactions that are based not on individualism but on collectivity. Critical management studies scholar George Kokkinidis' study of Greek workers' cooperatives highlights a similar angle on CDM. One of his participants describes consensus-based assemblies as ways to 'control our excessive Ego' (Kokkinidis, 2014, p. 20).

7.4.2 Vetoing

A common element of the practice of CDM is the ability individual participants have to block or veto decisions that appear to be at the point of near-consensus. Wilson notes that the blocks that exist within the framework of CDM should not in fact be seen as a typical veto that annuls a decision but as indicators that more discussion is needed (2014, pp. 150-151). The ability of individual activists to block during decision-making processes was highlighted in a number of my interviews with activists. One Doorbraak activists, for example, explicitly referred to this as a 'veto' but did not elaborate on whether and how it has or could be been used within the group (Eva, Doorbraak). Wilson is highly critical of this aspect of CDM and highlights the fact that it presents 'the ability for one individual, or a small minority, to block a decision [and] can lead to a situation where some members of a community are forced to accept the opinions of others' (ibid., p. 152). The inclusion of blocks or vetoes, if they are used to shut discussions down, in fact strengthens the role of the individual and shifts the purpose of the organisational practices towards the idea of *Liberal Ethical and Political Autonomy* where organisation is valued solely in so far as it facilitates individual self-expression and self-development. As a counter to this, many examples of radical left organisation involved elements of majority voting but with a high threshold to get decisions passed in general assemblies. Graeber, for instance, writes of Occupy Wall Street that they could 'fall back on a two-thirds majority, but later, a few days into the actual occupation, the General Assembly agreed on moving to a 90 percent fallback' (2013, p. 216; see also Dean, 2013, p. 54).

7.4.3 Standing Aside

Another aspect of CDM practice that can be problematic in terms of how it relates to individual autonomy within collective organisation is that of standing aside. This came up in my discussion with Locale Anarchistische Groep (LAG) activists. That group has established the protocol common to anarchist organisation that if an individual member does not agree with a particular course of action, they can 'choose whether they want to be involved in it' (Xandra, LAG). Of this practice, Wilson writes that 'rather than resulting in a tyranny of a minority, then, the minority can simply stand-aside from major decisions it disagrees with' (2014, p. 156). He highlights how this posits a private or non-political realm outside of collective action that activists can step into when they do not want to be affected by a particular decision.

As I tried to make clear above, however, individual autonomy and collective organisation are intimately connected and it is questionable whether an activist could in fact, as Wilson argues, really be free of the effects of a collective decision. If the autonomy individuals have is produced by moments of collective organisation, the existence of a space of autonomy outside of this is doubtful. Activists who choose to stand aside may still be seeing the organisation as a vehicle for their individual aspirations, such that when those aspirations no longer match up with the decisions of the collective they simply no longer see themselves as bound to that organisation. Fundamentally, this is a problem of responsibility and underlines how important a commitment to collective action is for *Anarchist Ethical and Political Autonomy*. As SAP activist Anton put it, 'if you want to have a democratic organisational structure, you need to have clear mandates and clear responsibilities' (Anton, SAP). An autonomy that permits standing aside based on individual inclination might not be consistent with the functional requirements that, I have claimed here, need to be common to *Functional Autonomy* and *Anarchist Ethical and Political Autonomy*.

7.5 Exclusion

While consensus decision making can be seen to limit the individualism that may be present in instances of collective organisation, blocking and standing aside arguably reintroduce this individualism by providing opportunities for activists to prioritise their own individual self-expression and self-development (potentially) at the expense of the collective. In the previous chapter the problem was raised of a lack of agreement on strategic and grand strategic questions. For Occupy Amsterdam, for example, despite the use of consensus decision-making methods there was little agreement on the broad organisational goals and the camp splintered and stagnated due to too much tactical autonomy. While strategic and grand strategic agreement is clearly important for radical left and anarchist organisation, what happens in the extreme cases where conflict over goals and principles cannot be resolved and where standing aside means more than opting out of specific decisions but exiting the organisation entirely?

In the previous chapter, I discussed briefly the example of the Vrije Bond in which a debate around the grand strategic alignment of the organisation took place and saw it shift from a trade union-type organisation to a campaigning-type more typical of contemporary social movement groups. While this can be taken as an example of how radical left and anarchist organisation can, when necessary, address grand strategic questions, this particular case also led to a level of conflict in the organisation that was not able to be resolved in the means suggested above. Ultimately, at least one long-standing member who was opposed to the change in grand strategy left the group:

> [t]here were some people who felt overruled by the decision making which was of course really bad but that's why they [left]. But I think it was also really personal, people who'd been involved for ten years or more and [...], yeah but it was really not good. (Timon, Vrije Bond)

Here, an unresolvable disagreement led to certain activists in the group choosing to leave rather than step aside and go along with the decision despite their misgivings. This in fact comes up often in the literature on anarchist organisation but is usually dealt with unproblematically by suggesting that sections of one group who arrive at irreconcilable differences simply go their separate ways. Schmidt and van der Walt, for example, write that '[t]hose who disagreed with those values [of an anarchist society] were under no

obligation to remain within a society with which they were at odds' (2009: 70). Bakunin too suggests that a group (or by extension an individual) who is in disagreement with the principles of an anarchist society has no right to membership or support from such as society. In fact, they must be excluded on this basis (1971b, p. 82):

> society is obliged to refuse to guarantee civic rights of any association or collective body whose aims or rules violate the fundamental principles of human justice.

Wilson extends his criticism of consensus-based processes to this kind of response, branding it 'remarkably naïve' (2014, p. 161).

Why might this approach to exclusion be naïve, as Wilson suggests? For an activist group like the Vrije Bond to arrive at a situation where one or more members feels excluded by a decision and leaves, or for such a group to split in response to fundamental disagreement, may be possible in the limited world of anarchist and radical left groups. There are always other groups to join and a plethora of groups has been almost synonymous with the radical left as a scene and movement since the nineteenth century. Even in the extreme case of an individual being expelled from the movement or scene as a whole, as happens in some cases where a particular activist poses a threat to others due to sexual assault or similar behaviours, there is still an outside world in which they can participate. For Beer's organisational cybernetics and his work in mainstream business and management consulting, this would amount to disbanding part of a company; a traumatic and potentially destructive resolution but one that the individuals involved would, in an ideal world, be able to live with.[53] But, as Wilson is right to point out, in so far as anarchist politics involves a commitment to prefiguration and realising an egalitarian and democratic society in the here and now, exclusion of this sort is far more problematic.

Prefiguration suggests that anarchist and radical left groups be seen as microcosms of anarchist social relations, with the practices activists bring into existence judged based on the extent to which they both mirror the ends of anarchist politics and, at the same

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[53] Indeed, the time in which Beer was developing his organisational cybernetics saw the lowest levels of unemployment in the UK in the twentieth century, excluding the war years, and is commonly referred to as a period of full employment.

time, create the space for the negotiation and articulation of these ends as they change over time. In so far as this is an image of a complete anarchist society, the idea of exclusion poses a big threat to the practicality of anarchist politics, or at least to the extent to which it can be taken to its logical ends. While for small radical left activists groups there is always an outside that an individual can still participate in, in a larger society it is not at all clear what being excluded would mean. Would individuals or groups be shunned by their peers, exiled from their communities? And if so, how would they survive, given the interconnectedness of social life and necessities like the production and exchange of food and other goods? A further problem with this rather simplistic notion of exclusion is the question of how it is decided, both in an anarchist organisation and a broader society, which party ought to be excluded and leave the collective? As Wilson points out, there is no reason at all to believe that this would be straight-forward. When it comes to disagreements about grand strategy, disagreements that make collective organisation difficult if not impossible, will it ever be clear which of the various positions can have claim to the original collective organisation and which will be required to leave?

It is questions like these, which are rarely addressed in either anarchist literature or in activist circles, that suggest to Wilson that there are perhaps certain limits to anarchy. At the very least, these are questions anarchist and radical left activists need to take seriously and that cannot simply be brushed aside as unproblematic. While I do not want to extend the discussion here to attempt to find answers to these questions, I close this section having, I hope, highlighted how they relate to the ways in which autonomy is framed within anarchist and radical left politics. The argument here, therefore, does not aim to solve the problem of exclusion in anarchist and radical left organisation, but instead points to a possible tension within anarchist cybernetics. Indeed, for an anarchism that takes seriously functional viability, as much as for a cybernetics that takes seriously ethical and political autonomy, the question of exclusion and its effects deserves further analysis. Anarchist and radical left politics, in so far as it is prefigurative and experimental, will, one would expect, develop to address these concerns as they arise.

7.6 Conclusion

This chapter began with an overview of how Beer characterises autonomy in organisational cybernetics and in the VSM. For cybernetics, autonomy is a functional concept that helps explain how viable systems and organisations operate. *Functional Autonomy*, as I termed it, refers to the ability of the individual parts of an organisation to decide for themselves how best to respond to complexity and change and to engage in tactical choice. This autonomy, crucially, is framed within the restrictions or constraints of these parts, be they individuals or sub-groupings, working within the framework of the overall organisation. As in the previous chapter, the central idea at play in this cybernetic account of organisation is the balance that needs to be achieved between the tactical autonomy that flexibility demands, and the strategic and grand strategic restrictions on this autonomy that organisational cohesion demands. Looking at autonomy from an ethical and political perspective, which Beer explicitly does not do, this can be seen in a negative light, as some necessary but regrettable constraints. Indeed, this in many ways sums up what I have described as *Liberal Ethical and Political Autonomy*. *Anarchist Ethical and Political Autonomy* instead views the constraints and restrictions of collective organisation as in fact productive of the autonomy individuals and sub-groupings might enjoy therein.

For anarchist cybernetics, this is where the *functional requirement* of restricted autonomy in cybernetics and the ethical and political *ontology* of a collectively-constructed autonomy in anarchism meet. Both concepts (as distinct from anarchist and radical left practices around autonomy) place a high value on autonomy, both for individuals and groups within larger structures, but at the same time both recognise the role of restrictions on autonomy not simply as necessary evils but as fundamentally constructive elements in producing autonomy. This, then, is an understanding that helps to bridge the conceptual gap between *Functional Autonomy* and *Anarchist Ethical and Political Autonomy*. As I suggested earlier, in order for anarchist cybernetics to remain a conceptualisation of anarchist and radical left organisation, these to overlap and to point towards the same kinds of space for freedom of tactical choice and, crucially, the same manner of restricting this choice. In the remainder of this chapter I have highlighted the role of specific decision-making mechanisms common to radical left and anarchist

politics in shaping this autonomy. At the same time, I have also suggested some of the potential limits of this anarchist politics and pointed towards the tensions that emerge when the idea of anarchist cybernetics is used to help elaborate the dynamics of anarchist and radical left organisation.

SECTION 3 : COMMUNICATION

Chapter 8 : Communication and Social Media in Radical Left Groups[54]

8.1 Introduction

In the previous section (Chapters 5, 6 and 7) I present the 'control' side of the equation of anarchist cybernetics. As well as the features of democratic and participatory self-organisation, however, the other side of anarchist cybernetics, 'communication', needs to be discussed. Central to the cybernetic account of organisation are the communications infrastructures that facilitate self-organisation. In this section (Chapters 8, 9 and 10), I want to address some of the issues around communication that were raised in the discussions I had with radical left activists in the Netherlands and also by the development of anarchist cybernetics thus far. I begin here by providing an overview of the communications practices enacted by several radical left groups in the Netherlands. In Chapter 9 I will examine the actual nature of communication in contemporary activist communication practices and, in Chapter 10, the potential of social media to act as an information management system.

8.2 Cybernetics and Communication

Leaving the detailed discussion of communication to the second half of this thesis is not intended to suggest that communication is of secondary importance to cybernetics. Indeed, many accounts of cybernetics begin with communication and ideas of feedback and information before moving onto examining how these concepts figure in terms of organisation. Control and communication represent two essential sides of cybernetics and neither can be ignored or de-emphasised. I have started with control and self-organisation because, in terms of anarchist and radical left theory, this is the element that is put to the fore. What I hope to show in the remaining three chapters is that a

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[54] This chapter is based in large part on the article 'A Marxist and an Anarchist Walk into the Occupy Movement. Internal and External Communication Practices of Radical Left Groups' (Swann, 2014a).

conceptualisation of communication and the infrastructures that self-organisation cannot be understood without an understanding of control and self-organisation.

For cybernetics, organisation is nothing other than the communication. John Duda, writing of Wiener's cybernetic programme, argues that 'the very definition of a system lies in the communicative links between its component parts' (2012, p. 78). He goes on, 'any self-regulating system must first possess enough functional communicative links to make this self-regulation possible at all' (ibid., p. 78). In cybernetic thought, communication operates as a closer of uncertainty. Until a message is received and understood, a specific part of a system will be open to a number of alternative actions. But when that message is received, that space for alternatives is closed down and the part acts in a specific way, depending on the message conveyed. To illustrate this, I want to take an example that draws on the electronics and mechanics that lie at the origins of cybernetics. For the sake of simplicity let's imagine a system with a set of green, red and yellow lights that can have any one of these lights on at any one time. A signal transmitted from some other part of the system will, depending on what the signal says, trigger either the red, green or yellow light to come on. Until that signal is received, there is a level of uncertainty in the system and there are three possible, alternative states of this part of the system, and four if we include the dormant state of the set of lights. This is how Beer defines information, writing that it is '[t]hat which CHANGES us. […] How can I possibly know that I am informed? – Only because I have *changed my state*' ([1979] 1994, p. 283, emphasis in original). As Kenneth M. Sayre argues, 'the imparting of information [i.e. communication] is the reduction of uncertainty' (1976, p. 23; see also Willmer, 1977 and, on communication and the work of Niklas Luhmann, Beyes, 2005, pp. 454-455). Communication, therefore, determines a certain state among the uncertainty of alternatives.[55]

At work here is a functional approach to communication that defines it in terms of the effect it has in contributing towards a certain state of affairs. Seen along these lines, communication is intimately linked to organisation. As Sayre argues, while common

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[55] Information is actually a more complicated affair in the early work in cybernetics. Rather than the colloquial meaning that takes information as something with content and meaning that is transmitted between two points, for cyberneticians like Wiener information is a mathematical concept that defines the amount of uncertainty a transmitter has when choosing a message. I will return to this in the following chapter.

practice in academia is to separate communication theory from control or organisation, cybernetics brings these together to view organisation as a form of information processing (1976, p. 21). Simon Lilley et al. (2004, p. 3) characterise information along similar lines:

> The term 'information' can potentially be read as a description of a process, a process of information […] in which an 'interior' of a person is in some sense transformed as a consequence of interaction with significant aspects of the 'exterior' world. […] Forays into Latin unleash a chain of terms, *informare* – to give form to or to describe – which itself derives from *formare* – to form.

While these authors and others link this approach to managerialism and top-down control with a view to increasing productivity (Costea, Crump and Amiridis, 2008), it can be understood more generally such that self-organisation, in the participatory and democratic form that anarchist cybernetics deals with, can also be viewed as an outcome of information and communication.[56]

8.3 Social Media and Activism

Central to many of the radical left uprisings of recent years, so one narrative goes, are social media platforms, from mainstream offerings such as Facebook and Twitter to alternative, activist-oriented ones such as N-1 and Crabgrass. While there are those who support this account of the radical potential of social media (e.g. Mason, 2012; Castells, 2012; for an overview of these debates see the introduction to this thesis), studies such as the OccupyMedia! Survey (Fuchs, 2014c) have found that traditional forms of media communication such as face-to-face interaction and older online media including email, forums and websites are often considered by activists to be more important to these instances of radical left organisation that newer social media. Nonetheless, it can be argued that the specifically *social* nature of social media has allowed protestors to contribute to the democratic culture of uprisings like the Occupy movement, the Arab Spring, the Indignados/15M and the UK riots of 2011 as well as later movements in Brazil (2013), Turkey (2013-14) and Hong Kong (2013-14). In the introduction to this

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[56] See Beer ([1979] 1994, p. 344) on the important distinction here between information, which organises, and edict, which dominates.

thesis I defined social media (following Lovink, 2011; Page, 2012; Mandiberg, 2012 and Fuchs and Sandoval, 2014) as follows:

> *Social media are platforms that facilitate the forming of cognitive understanding, communication and production in a participatory and co-operative way and where users collaborate and converse through easy-to-use interfaces to co-produce meaning, information, electronic resources and knowledge.*

It is on the basis of this characterisation that I will approach the communication practices of radical left and anarchist groups.

On the one hand, social media are ubiquitous and their form of communication characterises much of contemporary capitalism as well as the resistance to it. On the other, the specific way in which that communication operates, which can be described as 'many-to-many' has, as I will argue, much in common with the modes of communication common to participatory and democratic organisational structures.

It was along these lines that some of the activists I interviewed characterised many-to-many communication, i.e. as having this potential for non-hierarchical, participatory and democratic practices, even if the reality is often more problematic than many of theorists of this form of communication make out. For example, Samuel, involved in the group of Indignados/15M activists based in the Netherlands, highlighted the use of social media tools such as collaborative pads (where documents can be modified synchronously by a large number of activists) and discussion platforms like Mumble (an open source programme like Skype but focussed on assemblies and consensus decision making). Samuel argued that 'the key concept is horizontality, where everyone has the same right to speak and contribute, and in a really open manner' (Samuel, Indignados and Occupy Amsterdam). Another activist, Joost, who participated in one of the smaller Occupy camps in the Netherlands, in the city of Nijmegen, too highlighted this aspect of social media, saying that 'it adds another dimension to the openness and the whole landscape of communication tools we have' (Joost, Occupy Nijmegen). These and other activists are, however, well-aware of the limitations of social media as many-to-many communication infrastructures:

I think it's good, I mean there's a lot of space for new ways of doing things and of course communication is one of the key elements. We have the Internet but it can be used against us as well. It's not a magic solution to all of our problems but it is a really important thing. (Joost, Occupy Nijmegen)

At the start of the previous section of this thesis, I outlined the organisational structures of the various radical left groups of which some of the activists I spoke with are members. In this chapter, to set up the discussions in this section of the thesis I will provide a similar overview but this time of the communication practices these groups engage in, divided according the distinction between internal and external communication practices. Internal communication refers to the communication practices in which members of radical left and anarchist groups engage when discussing issues amongst themselves and when making decisions about what actions the group should take. External communication, conversely, refers to the communication practices in which radical left and anarchist groups engage with activists and members of the public who are not considered members of these groups. [57]

What I want to suggest in this chapter is that, building on the account of prefiguration elaborated on elsewhere in this thesis, radical left and anarchist organisation should aim towards many-to-many communication in so far as this reflects some of the conditions for democratic and participatory self-organisation. In this way, the 'communication' aspect of anarchist cybernetics can be seen as intimately connected to the 'control' aspect. Many-to-many communication practices can be said to be more inherently non-hierarchical and participatory than one-to-many communication, which, one could argue, has an essentially top-down structure of one (or a few) communicating a fixed message to many. Additionally, just as the previous chapters have tried to align anarchist and cybernetic thought on the issue of autonomy and self-organisation, so too

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[57] As I mentioned previously, this distinction between the inside and outside of an organisation is somewhat arbitrary. In cybernetics, the environment and that which is in the environment (the organism, the machine, the organisation) form a single system. The distinction then is only ever true from a particular perspective (see e.g. Espinosa, Harnden and Walker, 2008, pp. 639-640; Cilliers, 2001). Here, as I am interested in the communication practices between people who are explicit members of these radical left and anarchist groups, I draw the distinction at that point and consider those who are not explicit members to be on the outside of the organisation. This, however, is only a pragmatic move and has little to do with the ontology of social organisation (on anarchism and organisational boundaries, see Frenzel, 2014 and Reedy, 2014).

is it necessary, for an anarchist cybernetics, to bring together these two traditions around a shared conception of communication and the infrastructure used to facilitate it.

8.4 Many-to-Many Communication

One way of approaching communication in the context of developing an anarchist cybernetics is through the notion of 'many-to-many communication'. The first explicit reference to many-to-many communication in academic literature can be found in a little-cited article on the principles of human communication written by Ruesch, cited above for his work with Bateson on communication. While Ruesch does not go into any detail on the topic, nor does he even properly define the phrase, he does list many-to-many communication as one of three modes of communication within groups, the others being one-to-many and many-to-one, alongside one-to-one conversation outside of the group context (Ruesch, 1957, p. 158).[58]

Given the connections between Ruesch and cybernetics, it is unsurprising that this application of the idea of many-to-many communication to organisation moves in much the same direction as Beer's work did in Chile with Project Cybersyn. Indeed, the notion of many-to-many communication does play a large role in how cyberneticians have conceived of communication. In the book he co-authored in 1951 with Macy Conference attendee Gregory Bateson, Ruesch mentions many-to-many communication but does not dwell on the idea (Ruesch and Bateson, 1968, pp. 39-40). The concept of many-to-many communication aims at articulating the nature of communication in groups of people rather than a more simplistic broadcast model of one-to-many or the direct, face-to-face reporting of one-to-one. For Gordon Pask, who I mentioned earlier in relation to functional hierarchy, the idea of conversation and interaction are central to cybernetics. Pask sought to develop artefacts (works of art, machines, physical structures) that engage users in a conversation and require interaction and communication (see Pickering, 2010, pp. 322-32, 364-371). And while much of Wiener's work, as I will discuss in the following chapter, is characterised in management and organisation studies as focussing on one-to-one or one-to-many

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[58] Chandler Harrison Stevens identifies some practical applications of the concept that prefigure many of the features of social media (1981).

communication, Robert Cooper's analysis does suggest a more interactional understanding of communication in Wiener's writings (Cooper, 2010, p. 249).

More recent scholarship that defines many-to-many communication does so in answer to the question 'who gets to say something to how many?' (based on Jensen and Helles, 2011, p. 519-520):

> *Many-to-many communication* refers to the communication that takes place in networks where everyone participating is able to send and receive information to and from everyone else in the network. The technological mediation of many-to-many communication would include wikis, blogs, social network sites, online chatrooms and, potentially, micro-blogging sites.

Of many-to-many communication, media scholar Denis McQuail writes (2010, p. 144) that

> [t]his category includes especially the use of the Internet for sharing and exchanging information, ideas and experiences and developing active (computer-mediated) personal relationships.

While much of the focus on social media in recent years has suggested, either explicitly or implicitly, that their development has made many-to-many communication possible (e.g. Rheingold, 2000; Lawley, 2003; Crosbie, 2006), there are important precedents including markets, sports stadiums, graffiti and community notice boards (Jensen and Helles, 2011, p. 520). Indeed, classic instances of many-to-many communication in the political sphere are over two and a half thousand years old: the agorae and assemblies of Ancient Greece that, it has been argued, have much in common with the decision-making structures of contemporary radical left and anarchist organisations, despite important differences (e.g. Graeber, 2013, p. 155). John Duda discusses and links to cybernetics the example of the radical left newspaper *Correspondence* that similarly acted as a many-to-many infrastructure (2012, pp. 190-194). My own interest in social media is motivated by their role in the 2011 uprisings. Characterising them according to the concept of many-to-many communication and as information management systems, however, suggests a connection with cybernetics. Examining how social media operate in the context of organisation is one of the crucial points in this thesis where anarchist

and radical left theory and practice, on the one hand, and cybernetics, on the other, converge.

Social media provide digital platforms for many-to-many communication practices to take place. It is in this regard that they are of interest in discussing radical left and anarchist social movement organisation and, more specifically, anarchist cybernetics. Indeed, this is one of the ways they can be described as 'social'. While a critical account of 'the social' and of 'social media' would need to include a broader conceptualisation of what happens on social media platforms (e.g. Fuchs, 2014a, pp. 40-42), in this chapter I want to focus solely on interaction and many-to-many communication.

8.5 Internal Communication Practices

Of the groups discussed in Chapter 5 that adhere to the more or less anarchist model of organisation (i.e. Anti-fascistische Actie (AFA), Socialistische Alternatieve Politiek (SAP), Locale Anarchistische Groep (LAG), the Vrije Bond, GroenFront! and Doorbraak), general assemblies or meetings are the most ubiquitous form of internal communication which, depending on the specific dynamics of the meetings in question, can be considered a form of many-to-many communication. GroenFront!, for example, has an annual gathering, used as a platform for discussions and sharing information: 'it's partly action training, it's partly people presenting certain topics of interest like hunting or shale gas or climate issues or whatever people are basically proposing as campaigns' (Paul, GroenFront!). While GroenFront! explicitly avoids making decisions at annual gatherings, other groups like the Vrije Bond or LAG do make decisions on such occasions and do so with a view to achieving consensus on specific issues. In these cases, the role of many-to-many communication is not limited to sharing information or having open-ended discussions, but includes ensuring that everyone involved in the groups has a voice and can participate in decision-making procedures and, therefore, has a role in determining the direction of the organisation.

In terms of social media and many-to-many communication, a number of activists I interviewed described the use of email networks as one of the key ways in which group

members communicate with one another.[59] AFA, for example, makes use of an internal email listserv for discussions, as does GroenFront!. Vrije Bond activist Timon attributed that group's reluctance in using a listserv (apart from the one-to-many manner of distributing information to the list) to the common complaint about online communication: that it too quickly descends into arguments and aggressive behaviour that would very rarely occur in offline communication. Doorbraak is one group that has made an online discussion forum central to its internal communication practice, as 'an important means of staying constantly in contact with one another and to deepen political discussions' (Eva, Doorbraak). In these ways, the networking technologies developed over the last two or three decades, namely email listservs and forums (see e.g. Juris, 2008; Lievrouw, 2011), do play important roles for the many-to-many internal communication practices of these groups on the radical left. As with general assemblies and meetings, these tools are used to reinforce the democratic character of these groups. While none of the radical left groups whose members I spoke to use mainstream social media platforms such as Facebook or Twitter for their internal communication practices, LAG does use a platform, Crabgrass, as a central part of its internal discussion and decision-making procedures (see below for details).

One-to-one communication, however, still plays a role in organisations that pride themselves on being radically democratic and participatory. This picture holds true when online or technologically-mediated communication is included in the analysis. A good example here is the SAP, which tries to move members towards more many-to-many communication practices. SAP member Anton described the situation:

> What we're trying to do, not always successfully, is to stimulate people to send in reports about what they're doing and what's happening to our internal members-only site, so that it reaches everybody and so that we have a record of what's happening. (Anton, SAP)

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[59] Including email listservs in a discussion of social media may seem odd. Email does of course predate social media platforms such as Facebook and Twitter and operates in a far less public way. By including it here, however, I want to highlight the fact that listservs connect (potentially) large numbers of people together in a network in which any one person can email every other person in the network at any time. As such it fits the model of many-to-many communication and the definition of social media used here. In the same way, the Indymedia platform that was developed by activists in the alterglobalisation movement in the late 1990s can be seen as a pseudo-social media platform in that it allowed activists to communicate as members of a large network. In many ways, Indymedia in fact prefigured the structure of social media.

While the SAP is trying to integrate many-to-many communication into their internal practices, the habits of members in relying on one-to-one communication have hampered this process. In this respect – and this goes for the other groups discussed here too – the key piece of technology for these one-to-one communication practices is the mobile phone, with activists making use of voice calls and SMS texting.

Aside from those involved in explicitly anarchist groups, I also spoke to a member of the Trotskyist group the Internationale Socialisten (IS). Internally, the IS does have a central committee that runs the organisation from day to day and so could be said to be involved in one-to-many communication practices, in so far as the committee determines the priorities for the local branches and communicates these priorities to them. The IS activists I spoke to, however, was clear that it was a democratic organisation and highlighted many-to-many discussions at local branch meetings and national conferences that are held once a year and at which all members are welcome (Evert, IS). Internally the IS does not make use of an internet forum or email listserv. Evert, the IS activist I interviewed, is involved in the editorial collective of the groups newspaper and noted that the activists who are members of that sub-group do have some discussions on Googledocs[60] when putting the newspaper together but these discussions often end up finding a place at the branch meetings soon after.

8.6 External Communication Practices

While external communication is one area where many of the radical left groups under discussion here have included social media platforms like Facebook and Twitter, little of this follows the many-to-many communication model that is partially definitive of social media. AFA, for example, was quick to take up social media and even had a MySpace account before platforms like Facebook and Twitter came on the scene (MySpace was launched in 2003 and was overtaken by Facebook as the most popular social network in 2008). However, AFA used MySpace for one-to-many communication and actually discouraged people from becoming 'friends' with them, as

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[60] As with email, Googledocs is included in this discussion of social media in so far as it allows for a group to collaborate and communicate in a networked way that reflects the many-to-many communication model and the definition of social media provided above.

this could single that person out as a target for the extreme right (Thijs, AFA). So while AFA and other groups, the Vrije Bond and GroenFront! for example, do use Facebook and Twitter, this is almost exclusively for one-to-many communication. One reason for this cited by activists was the tendency (mentioned above) for online discussions to degenerate into arguments and the difficulty of having intelligent debates on something like Twitter, where users can only use 140 characters per message. Most of the use of social media for external communication comes in the form of groups sharing information from their websites with followers. The LAG, for example, uses Facebook to promote events but does not actively check their Facebook account or respond to comments (Jay, LAG).

A typical example of how radical left and anarchist groups use social media is the SAP. Anton, one of the SAP activists I spoke to, described a situation that can equally apply to many of the groups mentioned here, declaring that

> what we basically did was, we have a paper journal, and first we had a website to help expand the readership of this paper journal, and now this also includes a Facebook page. (Anton, SAP)

In common with similar groups, the SAP's approach is limited to a one-to-many model of communication with articles written for their online journal being shared on Facebook. This is an interesting case in so far as in addition to this standard, broadcast mode, the SAP made an attempt to use their website and Facebook page more as many-to-many communication tools, engaging readers in debates and responding to feedback and comments. They have, however, not seen the levels of engagement from their audience that external many-to-many communication practices might require:

> It's still very much one-way communication of writers to an audience, even though in principle we'd like to have more of the character of a conversation. […] If there would be more of a conversation and more of a response, we would definitely want to stimulate that and we reply to whatever feedback we get, but there's just not that much feedback.

Anton went on:

> [f]or a long time we had a website on which it was possible for people to reply to articles on the website, and that was a choice we made because we wanted to encourage people to respond and discuss. (Anton, SAP)

This shows a clear awareness of the potential of many-to-many communication inherent in internet technologies.

Three radical left groups under discussion here have in fact managed to engage those outside the group in a many-to-many manner. The first of these is Doorbraak. Externally, Doorbraak's communication practices centre on a blog-type website and Facebook and Twitter accounts, as well as Google+ (the only group discussed in this thesis to use this platform). They also use an announcements listserv. Where Doorbraak differs is in the way in which they use both the website and their Facebook page as platforms for discussions around the topics of the articles that are posted there, with Doorbraak activists responding to comments. What Doorbraak does with social media is more or less what the SAP has been trying to do without the same level of success, namely, using social media technologies as part of many-to-many communication practices. These platforms, however, form only a part of the external communication practices, something stressed by Doorbraak member Eduart, who made the point that a mix of methods and tools is needed in engaging with those outside the group (Eduart, Doorbraak).

The second group that makes use of social networking technologies in a way more in tune with the idea of many-to-many communication is GroenFront!. While GroenFront! uses Facebook, Twitter and their own website in much the same one-to-many way as other groups, their use of crowd-sourced mapping techniques in an anti-hunting campaign provides a very interesting example of many-to-many communication in practice (see below for details).

The third group that makes use of many-to-many communications in a way that ties in with an anarchist cybernetic style of organisation, rather surprisingly, the IS. This is surprising given that of the groups mentioned here it is the least anarchist both in terms of its stated politics and its organisational structure. Nonetheless, while the IS does use Twitter and Facebook to spread articles in a one-to-many fashion, the IS does print in

the physical and online paper some of reactions they receive to their articles on social media. As Evert pointed out, 'you see that people react to articles easier on Facebook than having to send an email to the editor' (Evert, IS). As well as this, people are sometimes asked to contribute an article to the paper based on their comments to articles posted on social media. On the one hand this suggests a form of many-to-many communication, with the newspaper acting as a platform for a conversation between the organisation and those outside it (see Duda, 2012, pp. 190-194 for a similar example).[61] On the other, however, it raises a problem in the sense that if it is an example of many-to-many communication at all, it is one mediated by the editors of the newspaper and is not a free and open conversation.

8.7 Activist Social Media Platforms

Throughout this chapter I have mentioned a number of specific examples of social media platforms that figure in the internal and external communication practices of the radical left and anarchist groups discussed here. Before closing this chapter I want to focus on three platforms in detail: Lorea/N-1; Crabgrass; and Crowd-sourced mapping.

8.7.1 Lorea/N-1

N-1 is a social networking tool designed specifically to enable activists to collaborate on projects and share information online, and it came to prominence with the 15M and indignados movements in Spain and the Occupy movements elsewhere. Josep-Lluís Micó and Andreu Casero-Ripollés (2013, p. 8) report that use of the N-1 platform rose from around 2,000 members before the 15M protests to more than 31,000 after.

N-1 is one of a host of networks running on the Lorea architecture. Lorea (n.d.) describe their work as

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[61] In the article on which this chapter is based (Swann, 2014a), I suggested that the IS engages exclusively in one-to-many external communication practices. Based on a re-examination of the interview transcript of the discussion I had with Evert, the IS activist, I have here corrected this conclusion.

a project to create secure social cybernetic systems, in which a network of humans will become simultaneously represented on a virtual shared world. Its aim is to create a distributed and federated nodal organization of entities with no geophysical territory.

They go on to say that their goals, reflective of the organisation structure of the indignados and Occupy movements, are

to meet in assemblies, to choose delegates always revocable by the base, to connect all the sites of struggle, not to neglect any of the technical resources useful for liberated communication[.]

Lorea networks have several features, including the full customisation of profile pages and dashboards, wikis, pages, collaborative pads, blogs, task managers, status updates and private messaging, group affiliations and connections between groups and the ability to federate between groups and networks. (Cabello, Franco and Haché, 2013, p. 343) The Lorea network contains at least fourteen different platforms, over 5,000 groups and more than 44,000 inhabitants (this being the term chosen over 'users'). (ibid., pp. 343-344) As Lonneke van der Velden highlights (2013), privacy is one of the key concerns of Lorea developers and users.

Lorea is of course not without problems. As Florencio Cabello, Marta G. Franco and Alexandra Haché (2013) note, development and uptake has slowed due to instability, poor interfacing, the inability of using it 'as a megaphone for reaching and mobilizing people (no critical mass of millions of users)', the inability to procrastinate on its networks in an enjoyable way (as with Facebook), and the general lull in interest in the 15M movement.

8.7.2 Crabgrass

Developed by Riseup, a collective of web developers that provides (primarily for activists) free private, encrypted email accounts and listservs, Crabgrass is designed as a platform that aims to include everything groups need to organise online. This comes down to 'social networking, group collaboration and network organizing' (Crabgrass, 2015):

By social networking, we mean the ability of users to get to know one another through their online contributions and presence. By group collaboration, we mean the ability of small groups to get things done, such as share files, track tests and projects, make decisions and build repositories of shared knowledge. By network organizing, we mean the ability of multiple groups to work together on projects in a democratic manner.

Given the rise in the use of online tools and platforms in grassroots organising, Crabgrass attempts to fil the vacuum left by the dominance of corporate social media by providing a free piece of software that allows a single user profile to interact with different groups and projects. Crabgrass works much in the same way as other social media platforms like Facebook and alternatives like Lorea/N-1, with a range of functions that allow groups to share information, create events, make decisions and network with other groups.

8.7.3 Crowd-sourced Mapping

One of the ways in which GroenFront! opposes hunting is by creating an online map of hunting cabins and related objects and locations (including animal feeding sites and watering holes). The map has had over a thousand submissions from various sources, including activists and members of the public, who can email information and GPS coordinates to the organisation (hence the term 'crowd-sourced', i.e. the information is sourced from the crowd). As well as providing the evidence required to counter the statements from hunting organisations, the map is also intended to provide the information required by those involved in the campaign to stop the hunting of boar and deer. The map also includes the details of hunting cabins and lookout nests that have been sabotaged by activists.

Crowd-sourced mapping can be seen as an example of 'location-based social networking', and specifically as a 'bottom-up' variation thereof: 'everyday users, not people in power or governments, add the information to the map' (Evans, 2013, p. 193; see also Hirsch, 2011).

Crowd-sourced mapping, like the type used by GroenFront!, also entails some problems. First, by creating an information resource for radical left activists which

includes potential targets of direct action, it also provides a resource for the authorities trying to prevent exactly those actions from taking place. Secondly, while maps like that hosted by GroenFront! do provide an opportunity for a horizontal sharing of information, in situations where that information needs to be verified before being mapped, the role of a mediating body could raise problems for the non-hierarchical nature of the project. In addition, concerns can be raised about how the free labour of users involved in crowd-sourced mapping (and other crowd-sourcing activities) can be monetised to provide profit for companies (Evans, 2013).

8.8 Conclusion

In closing, I want to return to the idea of prefiguration and of many-to-many communication being compatible with the participation and democracy at the heart of anarchist organisation and anarchist cybernetics. Prefiguration suggests that there should be a certain level of congruity between the organisational structure and the stated political principles of a group or practice. Applied to communications practices, this points towards the claim that anarchist organisation ought to be founded on or heavily involve many-to-many communication (see Atton, 2002, p. 51 for a similar argument). One might expect, therefore, to see an attempt by anarchist groups (e.g. AFA, the Vrije Bond, LAG, GroenFront!) and others committed to participatory and democratic organisation (e.g. Doorbraak, SAP), to embody the principle of many-to-many communication in their practices. While all the anarchist and anarchist-type groups discussed here engage in many-to-many communication internally, only GroenFront! and Doorbraak engage in many-to-many external communication. The LAG, AFA and the Vrije Bond all engage in more traditional one-to-many communication externally. The SAP has made concerted attempts at initiating many-to-many communication practices both internally and externally, but these have come up against a lack of uptake amongst activists as well as the group's 'audience'. The IS, while definitely not an anarchist or anarchist-type organisation, does in fact bring in elements of many-to-many communication to its external communication practices.

In terms of social media platforms, the examples of the LAG and GroenFront!, which make use of the activist-oriented platform Crabgrass and crowd-sourced mapping

respectively, are important. It is these examples, as well as the use of mainstream platforms like Facebook and Twitter that suggest how social media can come to act as an information management system in radical left and anarchist groups. Information management systems are tools that facilitate certain forms of organisation. The potential in social media platforms, along these lines, for democratic and participatory engagement, based on the character of many-to-many communication, points towards a compatibility with anarchist organisation. Given the importance of communication and information management systems in cybernetics, social media may well be the relevant organisational tool for the democratic and participatory structures anarchist cybernetics seeks to elaborate.

Chapter 9 : Noise and Information Overload

9.1 Introduction

If the mode of communication common to social media and anarchist organisation can be characterised as many-to-many communication, what does this mean concretely for how activists communicate and organise? An important discussion needs to be had around what exactly social media-based communication practices are made up of, not in terms of their architectures and infrastructures but at a more basic level of what many-to-many communication actually is. When we talk about many-to-many communication, what exactly is communication? Central to answering this question, I will argue, are the ideas of noise and information overload. While the concepts of noise and information overload have always had roles in discussions of communication, it is in light of social media that they come to the fore as crucial to how we can understand communication. Rather than being seen as factors that might interfere with effective communication, I will argue that they are in fact inseparable from the experience of receiving information through social media.

9.2 A Look Again at Cybernetics and Communication

I want to use the definition of communication from the previous chapter as a way to highlight what happens when social media is used in the context of radical left and anarchist activism. A fundamental element of this functional understanding of communication – i.e. of an approach that recognises communication as a process that operates towards certain ends – is the idea that communication can be both successful and unsuccessful. Successful communication allows for information to be received and, cybernetically speaking, for stable and viable organisation to be facilitated. Unsuccessful communication might, on the other hand, lead either to the disorganisation or to the over-centralisation I have pointed to throughout this thesis as two of the dangers a cybernetic perspective on anarchist and radical left organisation highlights.

The two problems associated with communication I want to discuss here are noise and information overload.

Noise was identified as a core problem for communication around the time that Wiener defined cybernetics as a field. Wiener writes that in response to noise, '[w]e then face the problem of restoring the original message' (1961, p. 10; see also 2003, p. 299). The most influential account of noise comes from information theorist Claude E. Shannon, a student of Wiener's at MIT (Shannon, 1948; Shannon and Weaver, 1949). Shannon's work in mathematics and the Shannon-Weaver model (named after Shannon and his populariser Warren Weaver, see Figure 3) of communication are closely bound-up with Wiener's work in cybernetics. Shannon attended as a guest the Macy Conferences in the 1940s and 50s that initially developed cybernetics and was involved in some early worked on robotics and cybernetics (Pickering, 2010, pp. 42-43; on the relationship between Shannon and Wiener, see Aspray, 1985; Bawden, 2012; Kline, 2015). The Shannon-Weaver model of communication states that when a signal is passed from a transmitter to a receiver, the process of transmission entails that noise is added to it. Noise is defined here as involving 'statistical and unpredictable perturbations' (Shannon, 1949, p. 11) and while regular distortion (e.g. encryption) can be removed by reversing the distortion process (e.g. decryption), noise is irregular and involves more work on the part of the receiver to determine what is the noise and what is the intended signal.
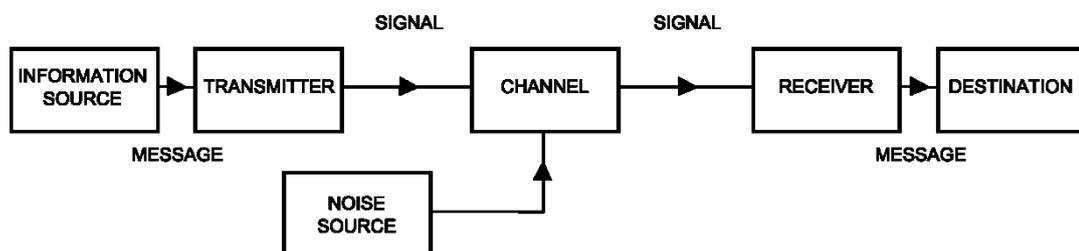
Figure 3: The Shannon-Weaver Model of Communication, adapted from Weaver, [1949] 1973, p. 29.

Thinking about noise more generally, the classic example is static on a radio or television (e.g. Fiske, 2011, p. 7), and the now antiquated act of trying to move and twist the aerial to get a clear transmission would be one way of attempting to eliminate this static noise from the message being received. As John Fiske notes (ibid., p. 7),

162

according to the Shannon-Weaver model (and how Wiener understands noise), anything that prevents a receiver from accurately picking up a message can be described as noise; so an uncomfortable chair in a lecture hall would create noise that would make it harder for someone following a lecture to take in the intended message. Weaver highlights the fact that there are two kinds of noise. 'Semantic noise' refers to distortions of meaning which make a message difficult to understand. 'Engineering noise', on the other hand, refers to the noise that is applied to the message as it is transmitted between the sender and the receiver and has nothing to do with the actual meaning of the message (Weaver, [1949] 1973, p. 36). A signal cleaned of engineering noise could still be difficult to understand and so still be subject to semantic noise.

As noted above, this account of noise and the related understanding of communication fit with a functional view of organisation. Indeed, from a cybernetics perspective one of the core elements of communication and information is that they constitute organisation, they act to reduce uncertainty and determine decisions. When a message is transmitted and received, the receiver will ideally have the resources required to choose from between a number of alternative courses of action. In this way communication reduces uncertainty.

Linked to this approach to communication is the idea of information overload. While noise refers to the part of the received signal that is, according to the Shannon-Weaver mode, functionally useless information overload refers instead to a situation in which too much message content is received than can be processed. David M. Levy (2008, p. 498) defines information overload as

> a condition in which an agent has – or is exposed to, or is provided with – too much information, and suffers negative consequences as a result (experiences distress, finds itself in a "problematic situation", is unable to make a decision or stay informed on a topic, etc.).

Before continuing, I need to make a brief point about how we understand the concept of 'information'. I have thus far tried to avoid using the term and instead preferred to speak of a message or of message content that is transmitted during the communication process. This is because the way information appears in the Shannon-Weaver model and in Wiener's cybernetics differs greatly from colloquial usage. Rather than referring to

the content of a message – i.e. what we mean when we ask for some information on a topic – in Shannon's and Wiener's work, information refers to 'your freedom of choice when you select a message' (Weaver, [1949] 1973, p. 30; see also Mirowski, 2002, pp. 68-77, 174; Kline, 2015). Information is defined as the level of uncertainty in whatever produces the signal that is to be transmitted. This is different, to be sure, from the uncertainty that communication closes, namely, that uncertainty relates to the receiver applying communication in the act of organising. One way to illustrate this is to imagine a survey that has yes/no tick boxes for some questions and blank boxes in which you can write an answer for others. For the tick box questions, the amount of information (the uncertainty in what the message will be) is very low: it will either be 'yes' or 'no'. For the blank boxes, the amount of information is relatively high as you will be able to construct your own sentences and choose your own words in the answer.

Shannon's and Wiener's definitions of information, which apply to an amount of information rather than a message with meaningful content, are specific to the mathematical and engineering context they and other early Macy Conference-attendees were working in. As Beer writes, highlighting the importance of this idea in cybernetics after Wiener, 'the consideration of communication channels automatically leads people to think of the information *content* transmitted. This is not what we are talking about' ([1979] 1994, p. 99). Weaver characterises this approach as applying to the 'technical' side of communication as opposed to the 'semantic' or 'influential' sides. Here, I am primarily interested in what he describes as the 'influential' side: 'the success with which the meaning conveyed to the receiver leads to the desired conduct on his [sic] part' ([1949] 1973, p. 28). Below I will examine what 'desired conduct' means in this context, but it is the focus on the way communication is involved in organisation that is important. For now I want to simply point out how information features in cybernetics and in the Shannon-Weaver model, how it is dissociated from meaning or organisational effect and, importantly, why I will try to avoid using it to refer to meaning or content as is common. In the phrase 'information overload' this is unavoidable as this is the common academic and colloquial usage, but here it needs to be made clear that the overload is not one of information as understood by Shannon and Wiener but of meaningful content.

Unlike noise, information overload applies not when a person receiving information cannot distinguish between noise and message. It applies when, even though noise is eliminated, the individual still cannot assess and make use of the message.[62] As Martin Eppler and Jeanne Mengis highlight in their discussion of the literature on information overload in the context of management and organisation, information overload is based on a similar functional, organisational account of communication, what Weaver defines as 'influential'. The literature on the topic focusses on 'how the *performance* (in terms of adequate decision making) of an individual varies with the *amount of information* he or she is exposed to' (Eppler and Mengis, 2004, p. 326, italics in original). While the idea of performance came up in Chapter 4 in relation to anarchism and cybernetics, here it connotes more the idea of, as Levy puts it, 'a "more-better-faster" attitude [that] governs the production of material and information goods' (2008, p. 513). In other words, performance is here linked to efficiency.

Despite this focus in the mainstream literature on a managerial, productivity-oriented performance, I want to suggest, as I have done in relation to the charge of managerialism levelled against cybernetics in general, that an anarchist cybernetics can maintain a model of functional communication as a part of an overall organisational theory. Again, speaking of communication from a functional perspective (and of noise and overload as problems that may dull the organising capability of communication) does not reduce these to this functional role. It is perfectly compatible with communication having other roles. It simply holds that as well as these other roles it also plays a functional role in organisation. Nonetheless, it may be important to identify a more critical approach to noise and overload, to their effects and, ultimately, to how they can be dealt with. I want first to turn to the experiences of the activists I interviewed in so far as they relate to noise, on the one hand, and information overload, on the other, as well as the use of social media and other online information management systems.[63]

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[62] While for Shannon and others this discussion is framed in quantitative terms (i.e. the specific amount of noise and information, the carrying capacity of the channels) here I am more interested in the more general, qualitative phenomena of noise and the lack thereof as they are experienced by those receiving information.

[63] The term 'information management system' is another point at which the more colloquial usage of information, as a meaningful message, is applied. For an account of overload in line with Shannon's and Wiener's definitions of information, see Weaver ([1949] 1973, p. 36).

9.3 Noise, Overload and Activism

For the activists I spoke to, noise and overload came up in relation to three generally distinct media: email; social media; and live streaming. One complaint came from activists in relation to email listservs and touched on email inboxes quickly filling up. Tommy, one of the LAG activists I interviewed, reported that

> a lot of people are experiencing that email lists have their restrictions because there's a lot of communication going over it and it's difficult to filter out what's important and what's not. […] With email all the different things just stack up on each other (Tommy, LAG).

While this points to a problem of noise, Xandra, also active in the LAG, added a focus on overload, saying that with email, 'your mailbox is for all the other important things [as well as activism] and sometimes you don't manage to properly look at things' (Xandra, LAG). Timon, of the Vrije Bond, expressed a similar concern about how 'email boxes get filled up so quickly' (Timon, Vrije Bond). The main problems associated with email and listservs typically relate to people misusing listservs and sending huge amounts of email (many of which might be of little relevance to the list but still end up in everyone's inbox), getting emails to do with activism mixed in with personal emails from friends and family, the ease with which the inflow of emails overtakes the ability to read and respond to them and the number of emails that need to be sent even when making fairly unimportant decisions (i.e. everyone having to respond to say they agree with a proposal). Here, both noise (unimportant emails swamping inboxes) and overload (too many important emails) are of concern.

Lives streaming refers to events such as meetings, general assemblies, discussions, talks or even protests being broadcast live on the internet, sometimes with the possibility of those watching to write comments and contributions and so to participate in the events they are watching. In relation to social media and live streaming activists told a similar story. Paul, a member of GroenFront!, was of the opinion that 'people get too much information through these two channels [Facebook and Twitter] that they hardly have time to react' (Paul, GroenFront!). Jay, from the LAG, commented of the Facebook account of the group, which he was involved in running, that

it's quite difficult because there are a lot of posts coming up on the wall... Hundreds and hundreds of invitations which is very difficult to keep track of so I don't even try. (Jay, LAG)

Facebook was also linked to a 'commercial overkill' of advertising spam. As a result of this overload of information coming in via Facebook accounts, many of the activists I spoke to were open about the fact that they were only able to use the social media platform as a means of outreach and not as a way of interacting with other social media users, something discussed in more detail in the previous chapter. The information overload activists report when using social media and email highlights how time constraints make the social, interactive aspect of social media, generally considered to be their defining feature, moot. With the overload of messages and posts, activists are unable to respond and engage in the kinds of conversations social media's many-to-many infrastructure might support.

This insight into the high cost of using social media in terms of time is mirrored in other studies of left-wing online activism (e.g. Fenton and Barassi, 2011, p. 187).[64] This is something the critical scholar of social media Geert Lovink has highlighted as well. The 'real-time' nature of online communication removes, Lovink argues, the ability for action and shifts communication away from the role it might play in facilitating how we live our lives (Lovink, 2011, pp. 29-30):

> The trend toward communication in real-time, the real movements and real events of our lives that are immediately reduplicated in the representational sphere of the media, will cut us off from the material time needed for action, chronology, and history, including concrete objects of experience[.]

While the activists I interviewed have not let the real-time aspect of social media overload define their political projects and thus disconnect them from action, the fact that they respond to overload by disengaging (rather than being immersed) with social media is similarly problematic. This means that they are not taking advantage of the capabilities social media have to allow for participatory, many-to-many communication

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[64] More general accounts of speed and the political problems surrounding it are often discussed in relation to, for example, the work of Paul Virilio and 'dromology' (Virilio, 1977). Ingrid M. Hoofd (2014) highlights this in relation to the use of social media and the democratic potential therein, making a sceptical argument against the possibility of democracy in the high-speed context of social media activism.

and information to effect organisational outcomes. Echoing these concerns, Joost, active in Occupy Nijmegen, was sceptical of live streaming as something genuinely useful in an activist context, pointing out that 'it's hard to follow because there's so much going on, it's really like an overload of things' (Joost, Occupy Nijmegen).

Mark, who was involved in Occupy Amsterdam and is a SAP member, was the most explicit when it came to the idea of noise rather than overload, even using the term itself. In relation to social media, Mark said that 'there's the problem of too much noise, you know. There's so much out there it's often hard to know how to navigate it' (Mark, SAP and Occupy Amsterdam). While this suggests a problem of overload, it can also be read as pointing towards times at which Mark found it impossible to determine useful from useless information in the stream of messages on Twitter: 'I […] hate it, I can't bring myself to tap into another source of just more info and opinions and stuff coming at me'.

The twin problems related to information and communication, of noise and information overload is, according to the radical left activists I interviewed, a central concern when it comes to doing activism online. The causes and effects associated with noise and information overload by these activists run parallel to more mainstream accounts of these problems. Eppler and Mengis, for example, highlight electronic meetings, email and searching online as causes to which the literature on information overload has pointed (2004, p. 327), while they underline stress, anxiety, confusion, pressure, demotivation and inability to make decisions as common symptoms. The activists I spoke to similarly mentioned exhaustion, feeling overwhelmed, being unable to focus, disappointment, sapping of energy, being drowned in information, being unable to react fast enough, forgetting things and no longer even trying to respond to messages (see also Lovink, 2011, p. 30). Focussing on activism specifically (though not radical left activism), journalism and communication scholar Rasmus Kleis Nielsen makes a similar point, noting that information overload and related phenomena 'arise precisely out of what was supposed to be the great advantage of Internet communications – its speed, ease, and low cost' (2009, p. 277). The little effort involved in sending messages and information via social media and email actually introduces the need for a great deal of effort in filtering for noise and responding to overload.

As solutions, some of the activists I interviewed stressed the importance of offline, face-to-face meetings. One activist, Marien, involved in a solidarity café aimed at supporting refugees and asylum seekers, described the ease of face-to-face meetings when compared to email listservs:

> If you have ten people in a group and you're sitting all together and you say, "okay, this is the proposal", and everybody nods, "yeah, that's okay", then you've sorted it. There's not ten people who have to say, "yeah, I agree", "yeah, I agree but…", "I don't agree 'cause…", and then… Like, if ten people send five emails you have fifty emails. (Marien, solidarity café)

The problem identified here is the multiplication of messages necessitated by communicating via email listservs. While Marien identifies going offline and having face-to-face meetings as a way of countering the proliferation of information overload and noise (something Lovink too argues for (2011, p. 29-31) in opposition to Clay Shirky (2010) who calls for better filters), other activists I interviewed saw the solutions to these problems in fact in an improved use of social media (closer to Shirky's argument). While the stream of information associated with email listservs and social media platforms like Facebook and Twitter, some activists suggested instead a turn to online forums, such as Crabgrass (see Chapter 8). Timon, the Vrije Bond activists I interviewed, pointed to the benefit of a such forum that 'you can take some weight off the mailing list' (Timon, Vrije Bond). Xandra of the LAG similarly identified the Crabgrass forum which the group uses as 'better than email' (Xandra, LAG). She went on: 'The forum is much easier. You go in and immediately you see what's new and what needs to be done, or where you can respond'. Other activists praised forums for the better overview they give of topics and the ease in responding in a more direct way. Another platform that was mentioned, by Samuel, involved in the Indignados/15M and Occupy Amsterdam, was N-1 (see Chapter 8). Samuel described how the ability to configure how you receive updates and emails 'allowed you to manage your time much better' (Samuel, Indignados/15M and Occupy Amsterdam).

Mark, while being one of the activists most sceptical of the ability of social media platforms to reduce noise, did highlight some of the criteria that countermeasures would need to meet in order to be effective. He variously spoke of 'mechanisms where certain ideas could come out and everybody could have a discussion about it', that 'could cut

through all the static […] a communication network in which people know when we really need you to be there [for demonstrations and the like]' but which would allow people to 'check out and rest', as well as the need for 'a really strong facilitator' to reign in discussions and keep things on topic (Mark, SAP and Occupy Amsterdam). This suggests concrete features of social media architecture that would allow certain messages to stand out from others (reducing noise) and allow people to distinguish easily between those that are of high importance and that that is not (reducing information overload). In the following chapter I will discuss in more detail such an architecture.

Interestingly, for Mark, at least in terms of the Occupy camps and the general assemblies that came to characterise how they were organised, the non-hierarchical and decentralised nature of face-to-face communication threw up similar problems as social media:

> You could devote every waking moment and every spare ounce of energy and brain cells to Occupy, because a million things were going on and it was all fascinating and interesting and you didn't want to miss anything important and all of this, so I know from myself I really tapered off how much attention I was paying to everywhere else but I just couldn't do it, stay focussed. […] Yeah, so the dispersed nature of it all is again a strength but also a weakness I think because it just means it's hard to know where to go. […] it felt to me like in the end it became just so much noise it was hard to filter what was going on. (Mark, SAP and Occupy Amsterdam)

So while offline discussion might allow for a structure that social media lacks, at present and in some examples, offline discussions themselves might in fact be subject to the same critique when it comes to noise and overload. Information overload has existed for as long as there has been an abundance of information (e.g. Blair, 2003; Rosenberg, 2003) and noise can apply to any communication process, not only those involving information technologies. What the comments of Mark suggest is that developing infrastructures and practices of participatory and democratic discussion and decision making, such as those discussed in the previous section of this thesis, that apply to offline political action are just as important as developing a social media architecture that allows for many-to-many communication but that counters for noise and information overload. In both cases, the promise of the medium (discussions and

decision-making practices that everyone can engage in) can also be its downfall (an abundance of noise and information).

9.4 Critiques of Communication Theory and Noise

The distinction between noise and overload, just to be clear, is like that between trying to find a needle in a haystack (noise) and trying to find one or a few specific needles in a pile of seemingly identical needles (overload). Information overload is specifically a problem of how many messages or how much message content is received. Noise works instead at the fundamental level of the signal itself. In this section, I want to focus on the model of communication at work in this chapter and in these accounts of noise and overload. Given the way in which noise is connected to this more basic level of articulating the idea of communication, it will feature heavily here at the expense of overload, which will take a back seat for now.

The Shannon-Weaver model of communication, the model that developed in tandem with cybernetics and, Wiener's work in mathematics, has come under some rather intense criticism in the years since it was first introduced. I will discuss two such critiques here: (1) that the model fails to take into account the interactive nature of human communication; and (2) that the way noise is approached is reflective of a totalising logic that reduces communication to a functional action.

9.4.1 The Interactive Nature of Communication

The first criticism, then, of Shannon-Weaver-type models of communication argues for a rejection of the linear nature of the model as this ignores the interactional characteristics of human communication in favour of a top-down, uni-directional approach in which communication is a simple transfer between a transmitter and a receiver. This is still relevant in relation to many-to-many communication, in so far as the account of communication cybernetics (and perhaps anarchist cybernetics) subscribes to might problematise the participatory and democratic nature of many-to-many communication. This critique emerges from the observation that meaning is co-produced by the author and the audience and how the message is received depends as

much on the audience (or receiver) as it does on the author (or transmitter) (e.g. Barthes, 1977; Díaz Nafría and Al Hadithi, 2009). This line of critique recognises that factors other than the linear transmission between a transmitter and a receiver determine how meaning is negotiated within a conversation. Lucy Resnyansky describes the Shannon-Weaver model as a 'reductionist view of human communication' and as a 'linear top-down pattern of communication [that] has proven ineffective and counterproductive within numerous areas of practice' (2014, p. 56). In a similar vein, José María Díaz Nafría (2010) argues that in reducing communication to a purely syntactical message (i.e. logical structure), the Shannon-Weaver model actually makes it impossible to show how a message can be distinguished from noise. In terms of human communication, he argues, there exists the requirement that the legitimate determination of what is a message and what is noise necessarily includes the 'need for truth, value, innovation, surprise or reduction of uncertainty' (ibid., p. 81). For the Shannon-Weaver model, the transmitted signal is completely distinct from its actual meaningful content. More than this, pure syntax, which is all the Shannon-Weaver model can account for, is unable to signal that something is a useful message. An ability to determine semantic content is required as well. For example, two messages of correct syntactic structure (i.e. both are grammatically sensible) may yet be distinct in that one is meaningless noise, a jumble that is of no use, while the other is meaningful and might be useful to organising (i.e. they have different semantic content).[65]

Before considering the final criticism, it is worth pausing here to examine this point in more detail. It is one that has been applied already to cybernetics and which is particularly important in considering how communication and noise operate on social media. In his critique of cybernetics and of Beer's work in Chile with Project Cybersyn, Werner Ulrich makes the point that for Beer's cybernetics to live up to its stated aim of offering a more participatory form of management it must include the scope for critical reflection on communication (1981). By reducing the signals involved in communication to information as defined in the Shannon-Weaver model (i.e.

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[65] Noam Chomsky famously identifies sentences of this type (1957, p. 15). 'Colourless green ideas sleep furiously' is syntactically correct but semantically meaningless. Díaz Nafría's argument is that the Shannon-Weaver model reduces communication to that which is syntactically correct. As such, this sentence of Chomsky's would not appear to be noise but, in terms of semantics, which the Shannon-Weaver model cannot account for, it is still clearly meaningless noise (except of course in so far as it illustrates this argument). (On the relationship between Shannon's work on information and Chomsky's on linguistics, see Mirowski, 2002, pp. 88-93)

172

information as the amount of choice in the signal selected by the transmitter), Ulrich argues, there is no space in the cybernetic model for agents, be they workers or other participants, to determine the meaning of the messages they receive. Furthermore, with Project Cybersyn, Beer relied on 'inteligent' computing to filter and remove noise from signals. Beer writes, for example, in *Platform for Change*, that '[t]he idea is to create a capability in the computer to recognise what is *important*' ([1975] 1994, p. 431, emphasis in original). The solution, then, for both noise and overload is to have computers filter messages and present to the user only that which is necessary. Of course, here the computer, or whoever designs and programmes the computer, is deciding for the user what is useful (correcting for noise) and what is, of that useful message content, the most important (correcting for overload). If, as I have argued above, communication works to organise, then this process removes some of the autonomy the user of a computer system has to self-organise. If the information is dictated by the computer's programming then so too, Ulrich contends, is the organisation. 'As an action system', he stresses, 'Cyberstride [the Project Cybersyn computer programme] can impose its autonomy on the allegedly autonomous decision makers' (1981, p. 52).[66]

On the one hand, the critique set out by Resnyansky, Díaz Nafría and others argues that the Shannon-Weaver model is an inaccurate image of human communication and that there is always an active process on the part of the receiver of a message to attach meaning to it. It is not simply that the receiver eliminates noise to get to the real message content beneath but that the meaning and the importance of the message is produced in part by the receiver. On the other hand, as Ulrich argues, such an approach that denies (as Beer's work in Chile may well have done) the possibility of such meaning-generation on the part of the receiver of a message reduces what should be an autonomous part of an organisation to a part the actions of which are already determined in advance. If social media are to be understood as information management systems, and if they are to play a role in an anarchist cybernetic conception of organisation, the way they transmit messages and correct for noise and overload must, therefore, avoid reducing the user to a passive receiver, an organisational subject rather

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[66] For more on this line of critique against Project Cybersyn see Medina, 2011, pp. 88-92. John Duda makes a similar point in relation to the development of ARPANET, the predecessor to the internet (2012, p. 133).

than an active organiser. Whether or not this reductive account of communication is present in organisational cybernetics as Ulrich suggests, it cannot be a consistent part of anarchist cybernetics if it is to reflect a participatory and democratic form of organisation.

9.4.2 Noise and Managerial Control

This brings me to the second criticism of the Shannon-Weaver and cybernetic approach to information I want to consider here. Turning to noise specifically, one criticism that is relevant in this discussion is that raised by Mark Nunes (2010). Nunes argues that the Shannon-Weaver model, among other similar models of linear communication, is reflective of 'a culture increasingly dominated by a logic of maximum performance' (ibid., p. 4). The concerns here are with communication as a process akin to giving orders or dictating a message to someone. Put simply, noise decreases the likelihood of accurate reception of these messages or signals. In this context, noise is characterised as error: 'Error, in effect, communicates information *without a purpose* – or at *cross-purposes* to programmatic control' (ibid., pp. 12-13). In response to this, Nunes takes inspiration from Umberto Eco (1989) as well as Gilles Deleuze and Felix Guattari (Deleuze and Guattari, 1987; Deleuze, 1992) in defining noise not as something to be eliminated but as a potential site of resistance in the sense that it allows for an understanding that is not dictated by control mechanisms. 'As a control system', Nunes writes, '"communication" [is reduced] to a binary act of signal detection [that] demands a rationalization of all singularities of expression within a totalizing system' (2010, p. 5).

Firstly, this critique makes a similar point to that identified by Ulrich and discussed above. Any communication process that determines for the receiver what is noise and what is useful dictates to that receiver certain forms of action, in so far as communication acts as an organising force. Secondly, it speaks to a further related point: that the organisational form dictated is not one of participation and democracy. This is again something Ulrich raises in his critique of Project Cybersyn. He argues that despite the aims of Beer, Salvador Allende and others involved in project to decentralise and democratise production, the way the communication infrastructure operated was to

counter this. 'Cybersyn's built-in purpose', Ulrich writes, 'thus appears to be a one-sided *efficiency of production*' (1981, p. 54, emphasis in original). The way in which a signal or message is produced (noise is eliminated, overload corrected for) not only removes human meaning-generation from the process but also works according to a logic whereby the performance and efficiency of those receiving the message is to be maximised. Indeed, the whole purpose of communication is to make the overall system or organisation more efficient in whatever task it is performing. While those involved in an organisation may well desire to increase their productivity or efficiency, the fact that an account of communication that seeks to eliminate noise before it reaches the receiver, to present them with a clear and unambiguous message, ignores the presence or lack of such a desire and decides in advance how the receivers ought to use it in organising.

Should a communication infrastructure such as a social media platform decide (or rather, should its programmers decide) what noise to filter out of the messages people receive, then this removes a crucial aspect of the autonomy that is central to anarchist cybernetics. It would shift the organisation more towards the centralisation of control and upset the balance that is required between centralisation and decentralisation. If this approach to noise is inappropriate for anarchist cybernetics, how then should we make sense of the fact that the activists I interviewed, all concerned intimately with autonomy and democratic organisation, made clear the problems associated with noise and overload? While they would undoubtedly be highly critical of the kind of 'managerial fascism' Ulrich warns of (1981, p. 55, following Ivan Illich[67]), they nonetheless stressed that noise does need to be filtered out of social media and that the volume of content needs to be reduced. While some suggested going offline and abandoning social media and internet communications, others pointed towards the strengths of some platforms, such as Crabgrass and N-1, in reducing noise and overload. In the following chapter I will discuss this in relation to designing alternative social media platforms. For now however, I want to suggest in broad terms an approach that is able to avoid reducing communication to a command that dictates to the receiver how to behave.

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[67] See Duda, 2012, pp. 136-138 on the connections between Illich and Von Foerster.

As I mentioned above, Nunes raises the possibility of noise being seen as a potential site of resistance to the very kind of domination that is, many argue, present in the functional account of communication proposed by Shannon, Wiener and others. As a logical negation of the kind of managerial performance maximisation Ulrich is critical of, an approach that sees a radical potential in noise may make some sense. A recent journal special issue on noise focussed on artistic practices that use 'noise as a constructive set of audiosocial tactics that disturb systems (genres, institutions, orders) from within' and that 'potentially open up a space for other forms of expression to come to the fore' (O'Dwyer, 2013). This idea of embracing noise as a space in which alternatives can emerge seems, however, rather vague and does not suggest any concrete practices that might help the activists I interviewed deal with the noise (and overload[68]) problems they face in their political work. In practice it seems to have been applied most in the context of creative and artistic work (e.g. Ballard, 2010; borrough, 2010)[69]. Anarchist cybernetics, however, holds that there is still a need for some level of functional action and, as a result, there may well be a need for filters and practices that do reduce overload and eliminate noise. The argument here is that as far as functionality is concerned, filtering noise does need to be considered. Perhaps there is a way for these needs to be met without resorting to a managerial, performance-maximising rationality that is at odds with the ethical and political autonomy of anarchism.

One move in this direction comes from Ulrich's account of an alternative to the approach undertaken by Beer and others with Project Cybersyn. Rather than have a computer programme (or indeed a social media algorithm) filter for noise and reduce the volume of message content to what it deems necessary and then presenting the user with a message or series of messages that determines their organisational behaviour, Ulrich argues that 'an inquiry system [i.e. a system for providing the message content needed for organisation] can produce meaningful knowledge only to the extent that it

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[68] Information overload, I see as more of a technical issue that can be solved either by improved filters or, importantly, by a rethink of how we as users engage with social media. I will focus here more on noise in so far as it speaks to a greater extent of the fundamental nature of social media communication.

[69] See also, however, Knut Auferman's cybernetic description of feedback in music and how noise leads to order in a self-organising way (2005).

keeps human inquirers critically aware (self-reflective)' (1981, p. 39). He attempts to redefine what I have termed here information management systems (although Ulrich is critical of this field in general) as 'social systems' rather than 'tools'. Instead of aiming to eliminate noise and present the user with a single, unambiguous message, Ulrich propose '*selectivity without variety reduction*'. Thus, '"variety" becomes a function of the observer's semantic and pragmatic context of meaning and is not an absolute, observer-independent measure of complexity' (ibid., p. 36, emphasis in original).[70] Not only does this chime with the second-order cybernetic approach discussed throughout this thesis, it also suggests a way in which noise can be engaged with that avoids both the domination of managerialism and the vagueness of the more artistic endeavour. It is, in other words, a way of working with noise that sits in the space between centralisation and decentralisation that is so critical to anarchist cybernetics. While noise still ought to be reduced so that communication can play a role as an organising force, it should be done in a way that involves users in generating and applying meaning to certain elements of the noise. In essence, the users of any information management system, or indeed the participants in any communication practice, can decide for themselves what is noise and what is useful content. In this way, noise can be reduced or eliminated, communication can play a functional, organisational role and the practices involved can remain participatory and democratic.

Along these lines, noise can in fact be seen as something that is productive of organisation. When confronted with noise, participants in a communication practice can collectively determine what the useful message content is. Of course the ability of individual organisational members – or, in the case of the examples of anarchist and radical left organisation discussed elsewhere, activists – will involve the same balance between centralisation and decentralisation that is common to both cybernetic *Functional Autonomy* and *Anarchist Ethical and Political Autonomy*. This creates a path, however, for a democratic and participatory approach to noise that can be both consistent with the functional requirements of anarchist cybernetics and the ethical and political requirements of anarchist and radical left politics. It points towards a way in which core elements of the Shannon-Weaver model need not be declared obsolete (e.g.

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[70] While the critique in this respect is levelled against cybernetics, it is important to note the views of Gordon Pask who saw conversation and discourse as central to cybernetic design (see Pickering, 2010, p. 323).

Shapiro, 2012, p.21) but instead need to be rethought. This idea, of noise as productive, is not without precedent. Michel Serres, for example, writes that '[t]he noisy, anarchic, clamouring, mottled, striped, streaked, variegated, mixed, crossed, piebald multiplicity is possibility itself' (1983, p. 56). Steven D. Brown, summarising Serres thought on noise, describes this position thus (2005, p. 222):

> The sender transmits a "signal" which differentiates itself against background "noise". But the receiver is not necessarily committed to this differentiation. It may be that some of what has been relegated to the position of noise has some informational value. The receiver then makes the cut (i.e., discerns, distributes) between signal and noise in their own fashion.

In other words, noise offers possibilities for alternatives that a reductionist approach to communication eliminates but that an anarchist cybernetic approach, imbued with participation and democracy, can help articulate. While communication, understood as an organisational force, is linked to ruling out alternatives, this is in fact only possible if a range of alternatives are already present. The difference between a dominating approach and an anarchist cybernetic one is that the alternatives are ruled out in a democratic and participatory way. Alternatives, on this understanding, are not, however, ruled out once and for all, and as Ulrich notes (1981, p. 36), the variety and complexity present in noise should be maintained as a space for possibility even when a single, organisational message is retrieved.

One account of noise and its relation to radical politics and self-organisation is particularly instructive in relation to the approach outlined here. Aguilera et al. (2013), members of the DatAnalysis15M Research Network linked to the Indignados/15M movement in Spain, analyse social media data sourced from Twitter in order to show the correlation between different kinds of noise and the practices of self-organisation that characterised the 2011 uprisings. Focussing on Spain, they identify three kinds of noise on Twitter: white noise – 'fully random fluctuations with no correlations in time'; brown noise – 'strong dependencies between the position of one sample and the next'; and pink noise – 'processes in which an equilibrium is found between the influence of short, medium, and long timescales' (ibid., p. 396). Social media communication, i.e. potential information, defined as white noise correlates with a (ibid., p. 401)

> system [that] is not really self-organised into a coherent unit of activity, but is rather the sum of the activities of a[n] uncoordinated crowd reactively triggered by an external stimulus.

Communication defined as brown noise correlates instead with (ibid., p. 401)

> processes organized according to more rigid schemes, like a strike, […] leaving no room for true self-organization as the individual dynamics are enslaved by the collective communicational process.

With pink noise communication on social media, however, (ibid., p. 399)

> processes seem to achieve an equilibrium between independent and interdependent dynamics […], suggesting that these process[es] reach some middle point between the spontaneousness of white noise and the stability of brown noise.

While this analysis points only towards a correlation and does not identify the concrete actions that take pink noise and turn it into self-organisation, it does suggest that certain kinds of noise, where there is neither too much nor too little fluctuation or incoherence, might contribute to the forms of organisation common to anarchist and radical left activism. Interestingly, this also tallies with the argument that has been made throughout this thesis, and that is based on Beer's insights, that viable anarchist organisation is based on a balance between too much autonomy and too much centralisation. Pink noise seems to indicate the level of noise that can be received by activists in a movement to allow for the balance. Too much noise and we see the kinds of problems the activists I interviewed spoke of (i.e. confusion, anxiety, a lack of organisation). Too little noise and we may end up with more rigid organisations that, from an anarchist cybernetics standpoint, are both functionally unviable and morally and politically objectionable. While Ulrich critiques Beer's work in Chile for doing precisely the opposite of this, it is worth noting that in *Heart of the Enterprise*, Beer in fact points towards an account of noise that is not too dissimilar. He defines noise as a '*meaningless jumble of signals*' but argues that 'what is "meaningless" to one person may convey meaning to another' and that 'it is worth suspecting *noise* of being *data* in disguise' ([1979] 1994, p. 282, italics in original). Beer does add to this a positivist spin by claiming that 'data' refers to 'facts' but nonetheless, this does show a presence in his work for an openness to the potential of noise.

9.6 Conclusion

On the one hand, this discussion points to certain factors that need to be considered if social media are to be used as information management systems in radical left activism. Given that the activists I spoke to highlighted noise and overload as problems associated with (but not limited to) social media platforms like Facebook and Twitter, and alongside this that they identified noise and overload as problems that need to be avoided (i.e. noise should be reduced or eliminated, overload should be countered), it follows that social media platforms ought to do something to correct for noise and overload. As I have shown, however, this does not mean that a social media platform should decide, based on its programming and algorithms, what message content is needed by activists. An anarchist cybernetics that goes beyond the limits of the approach to communication adopted by early cyberneticians like Wiener and, to an extent, Beer suggests that any information management system still needs to involve the critical engagement of its users if it is to support genuinely participatory and democratic organisation.

On the other hand, the analysis of noise in this chapter suggest an interesting way that communication might be rethought in the context of social media. The dominant theories of communication that I discussed at the start of this chapter hold that communication involves a transmitter, a channel and a receiver. The idea of many-to-many communication, for example, posits many transmitters sending messages over a channel (or indeed many channels) to many receivers. While this is of course true on social media, where users both send and receive messages, the way that communication is experienced by users is what might lead to a rethink of how we understand social media. What the discussion of noise and overload brings to the fore is that what is important in terms of how people use social media is less the transmission and the channel and more the reception. Indeed, rather than seeing communication as a process whereby a transmitter sends a message over a channel, which is then potentially distorted by noise before being received, cleaned of noise and interpreted, with social media the experience seems to be more one of a noise soup, so to speak, from which users determine messages. The understanding of noise presented in this chapter

highlights the importance not of a message successfully moving from a transmitter to a receiver, but of receivers determining what is message content from an amount of noise. The idea of a direct line between transmitter and receiver is missing from this account.

In practice, users transmit not to other specific users (unless they are using direct messaging) but to the whole collective of users. This signal sits as noise among all other message signals until other users look at it and, under ideal circumstances, decide whether it is noise or an important message. There is more action, on this analysis, on the part of the receiver than on the part of the transmitter. Looking back at the work of Ruesch and Bateson on communication, they do suggest a form of human communication that works along these lines. What they describe is cultural communication, where individuals receive messages not from specific sources but from the culture they live in (1968, pp. 281-282). They list messages such as those about language, ethics, metaphysics and religion as examples whereby individuals have knowledge and have received this but do not strictly perceive a transmitter of this knowledge. Of course in these cases there are transmitters (churches, schools, etc.), but the important point is the possibility of knowledge being received without the transmitter being an important part of the experience. The same could be said of social media. When users decide to class some messages as noise they can ignore and others as important, useful messages, they are presented not with a series of transmissions where the transmitter is central to the experience but with a stream (such as a timeline on Twitter or Facebook) that they scroll through to find the important messages. Perhaps this goes some of the way to answer media and design scholar Alan Shapiro when he asks: 'Now that we are in the age of social media like Facebook, Wikipedia, Twitter, and blogs, how should sociology redefine what information is?' (2012, p. 19). I raise this point as an aside, but it is important to note that the form communication takes on social media not only creates the possibility of a critical engagement with noise but might also force us to reassess out understanding of the communication practices we engage in.

Chapter 10 : Alternative Social Media

10.1 Introduction

The last chapter hinted at the development of information management systems specifically tailored to the ways in which anarchist cybernetics characterises effective social movement organisation. Central to this project is a discussion of alternative social media. The notion of alternatives has long been at the heart of radical left and anarchist politics. The alterglobalisation movement, as the name suggests, was not only a rejection of globalised capitalism but also a proposal for an alternative; or better, for a set of alternatives. As Paul Kingsnorth has put it, it was about 'one no, many yeses' (2013).

This thesis has been about identifying how anarchist cybernetics can help articulate and understand anarchist organisation through and beyond Stafford Beer's organisational cybernetics. If communication infrastructures like social media are so central to cybernetic accounts of organisation, how should they be defined in the context of anarchist cybernetics? In this chapter, I want first to highlight the problems activists and scholars have with mainstream social media platforms like Facebook and Twitter, framing these under three headings: (1) the political economy critique; (2) the weak ties critique; and (3) the political subjectivity critique. Doing so will allow me, in the second half of the chapter, to begin to outline the characteristics of alternative social media. Alternative social media, I will argue, understood both as communication platforms and information management systems, can play the pivotal role in the anarchist and radical left organisation that anarchist cybernetics underlines.

10.2 Alternative and Activist Media

While relatively little has been written about alternative, activist-oriented social media platforms, there is a wealth of literature going back to the 1990s on alternative media

more generally, and it is worth starting there to set out some of the terms of this discussion. Radical left groups have always included the production of media as a central part of their activism, at least since the radical politics of groups like the Levellers in the seventeenth century and their use of the printing press. Media scholar Mitzi Waltz defines alternative media as 'media that are alternative to, or in opposition to something else: mass-media products that are widely available and widely consumed' (2005, p. 2; see also Albert, 1997; Downing, 2001). The idea of an alternative here involves being defined against something, both in the sense that it opposes that something and also that it is characterised with that something in the background, from which it is differentiated. These are mainstream media, such as popular newspapers and magazines and both commercial and publicly-financed television and radio, which set the scene for the definition of alternative media. They provide the context and the examples to which alternative media are opposed and to which they provide an alternative way of doing media production and distribution. Alternative media, then, aim to embody the opposite of the defining characteristics of mainstream media. Based on the common critique of mainstream media, this situates alternatives within a radical left milieu and defines them as being at once non- or anti-capitalist and opposed to domination by the state, corporations and others.

While much of the work on alternative media focuses on content (e.g. Rauch, 2014) and political economy (e.g. Sandoval and Fuchs, 2010; Fuchs, 2010), specifically anarchist engagements with alternative media focus instead on participation. Jeff Shantz, for example, writes of an 'active membership system based on solidarity and mutual aid.' He links this need for participation to the critique of the economy of media and the importance of avoiding hierarchy and domination (2010, p. 52):

> [t]his participatory arrangement helps to alleviate tendencies towards a consumerist model that separates producers and users, with distinctions in power and control within the infrastructure.

Here, then, alternative media must be participatory and democratically-run. Sandra Jeppesen and others involved in the Collectif de Recherche sur l'Autonomie Collective (Research Group on Collective Autonomy) make a similar point, arguing that alternative media need to be based on prefiguration, 'where media activists create anti-hierarchical organizations in the here and now' (Jeppesen, et al., 2014b, p. 11).

Highlighting the need for participation as well as a non-commercial and non-dominating structure and content, Jeppesen et al. define anarchist or anti-authoritarian media collectives as those that (ibid., p. 3)

> establish economic and organizational forms that prefigure cooperative futures and build strong relationships with broader social movements while simultaneously creating counter-hegemonic content and counter-publics around interlocking issues of poverty, race, gender, colonialism and sexuality.

The concept of alternative media involves, therefore, (1) a critique of mainstream media and (2) a definition of an alternative to those mainstream media. The alternative defined in this context is both an opposition to mainstream media and something that turns mainstream media on its head and reverses many if not all (in the case of anarchist media) of their features. In the rest of this chapter, I want to try and perform a similar task for social media, by elaborating on a critique of mainstream social media and on a definition of the features of alternative, activist-oriented social media platforms. By doing so, a picture will emerge of the kind of social media platform that can operate in line with an anarchist cybernetic understanding of radical left and anarchist organisation.

10.3 Activist Critiques of Mainstream Social Media

There were three clear critiques of mainstream social media platforms that emerged in the discussions I had with radial left activists in the Netherlands: (1) the political economy critique, (2) the weak ties critique, and (3) the political subjectivity critique.[71]

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[71] As well as these there was also some concern raised about privacy and surveillance on social media, in relation to both the state and corporate collusion with law enforcement but also to information being available to employers and extreme-right groups who could use such information against activists. Such criticisms are commonly discussed in the literature (e.g. Fuchs, 2014a, pp. 153-174; Morozov, 2015), and while they are important they do not interest me here in so far as they depart somewhat from the focus on organisational dynamics and move the analysis outside of what is covered in the anarchist cybernetic account of radical organisation (on cybernetics and surveillance technology, see Tiqqun, 2010; Duda, 2012, pp. 261-262; The Invisible Committee, 2014; Hall, 2015, pp. 17-18; and for Beer's position, see Beer, 1974). The concerns of the activists I spoke to when it comes to privacy are perhaps best summed up by Paul, the GroenFront! activist, who said of social media: 'it's a complete wreckage for privacy and it makes tracking who's doing what way more easy, but it has so much of a potential that you just have to use it' (Paul, GroenFront!). The AFA activist I spoke to made similar comments, highlighting the fact that surveillance is nothing new: 'they [the security services] can tap your phone, there are cases when they've

In terms of political economy, the critique of social media tries to situate it in relation to capital accumulation and other factors identified by a Marxist economic analysis.[72] The argument here, simply put, is that by using apparently free social media platforms, users generate data that is represented as a commodity that can be sold to advertisers. The time users spend on the internet using social media is all time spent producing sellable data. The gross advertising revenue made by companies like Facebook (around $3 billion in the first quarter of 2015) and Google (around $15 billion in the same period), who do not charge for services but sell the data they collect through them, is, according to a Marxist analysis, exploitation along the same lines as workers in a factory receiving less in wages than the market value of the commodities they have produced. 'The difference,' Fuchs writes, 'is that users are unpaid and therefore infinitely exploited' (2014a, p. 110; see also, Fuchs, 2014b; Andrejevic, 2009; Coté and Pybus, 2007; Evans, 2013; Gerlitz and Helmond, 2013). One hundred per cent of the value of the data produced by using these services is revenue returned to social media platforms. This critique came through in a number of the interviews I conducted with radical left activists. As well as general resentment about being reliant on corporations, there were some specific concerns raised around the 'intentions of the designers' of mainstream social media that 'are not that great' and that 'it's already clear that Facebook is selling all its information' (Joost, Occupy Nijmegen). So while the critique wasn't as nuanced as that proposed by Fuchs and others, there was still an awareness among some of the activists I spoke to that the social media giants (Google, Facebook and Twitter), are operating for profit and are selling data.

While Fuchs connects this critique to the idea of the 'audience commodity' introduced by Dallas Smythe, i.e. that social media users are turned into a specific commodity based on their habits and attention at certain times (Fuchs, 2014a, p. 107), others have proposed alternative political economy critiques. Armin Beverungen et al., for example,

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broken into homes to hang up cameras, so I don't think Facebook is that much of an addition' (Thijs, AFA).

[72] For a broader account of Marxist and Autonomist Marxist thought in relation to technology, see Hall, 2015.

argue that Facebook in fact not only captures but also manages the free labour users undertake (2015, p. 483):

> When Facebook employees code algorithms for data extraction, or develop protocols like the "Like" button, they are effectively managing. They are guiding user behaviour in such a way that it is more likely to create marketable data, or generate content that will draw other users' attention, which can subsequently be commodified via advertising.

This is an important addition to the political economy critique in that it extends the role of management to social media and brings an organisational element to economic exploitation that, when thinking about how social media might operate as information management systems, is crucial (for a similar critique, see Andrejevic, 2011).

A second and related argument came up in my interview with two LAG activists, Tommy and Jay, who highlighted the cost of the smartphones that are increasingly users' main point of access to social media. As well as criticising the amount people are expected to pay for smartphones they also mentioned the waste involved in throwing away older mobile phones that still work to replace them with newer smartphones. As well as the free labour social media users contribute, Fuchs (2014a, pp. 119-120; 2014b) also highlights the material aspects of 'digital labour' such as the mining of certain metals and the factory work that goes into producing the hardware necessary for social media use. The plight of workers in plants assembling iPhones in China and the mining of minerals in the Democratic Republic of Congo in conditions close to or definitive of slavery underline the economic production processes that lie behind social media. It is clear that there is a material economy (and human cost) that supports the immaterial economy through which social media companies make profit. Given the radical left opposition to exploitative and harmful relations of production (not to mention the environmental effects of resource extraction), these are undoubtedly issues activists should be concerned with and that should be central to a political economic critique of social media and digital infrastructures more generally.

10.3.2 The Weak Ties Critique

The second broad line of critique taken against social media in the discussions I had with activists centres on the complaint that social media contact is not a suitable substitute for face-to-face contact when organising politically and that it creates only 'weak ties' between individuals rather than the 'strong ties' assumed necessary for long-term collective political action (an argument that emerged almost as soon as social media began to be talked about as a tool for political organising; see e.g. Gladwell, 2010; Morozov, 2011, pp. 179-203).[73] A phrase used by both the AFA and Occupy Amsterdam activists I spoke to was that online interaction was 'no substitute' for offline contact. This was expressed in relation to the idea of taking political discussions online social media platforms. As Mark, the Occupy Amsterdam and SAP activist put it, '[t]here's just no substitute for getting out and talking with people and dealing with the difficult questions' (Mark, SAP and Occupy Amsterdam). This was reinforced by Eva, one of the Doorbraak activists, who noted that in her paid work she was involved with a campaign that focussed on social media and that her conclusion was that it was definitely not an adequate means for building towards political action. Discussions on social media remain just that: 'talking, sharing, liking and linking'. Everything 'stays hanging' and does not lead to action. One reason given for this was that much of the content on social media was 'clicked away because it came across as something commercial or as advertising' (Eva, Doorbraak). There are examples, such as the Kony 2012 campaign,[74] of social media campaigns that have, indeed, turned out be little more than what Evgeny Morozov termed 'slacktivism' (2011) and what Jodi Dean has called 'clicktivism' (2009), where a buzz is generated online through very low-threshold activities such as signing a petition, liking a Facebook page or tweeting using a specific hashtag.

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[73] These discussions of social media and weak ties reflect more general debates around strong and weak ties in social networks and political movements. Important contributions include those of Mark Granovetter (1973; 1983) and Nicolás Somma (2009).

[74] This was the social media campaign that aimed to pressure Western governments, the United States in particular, into committing to military intervention in Uganda to capture Joseph Kony, the leader of the Lord's Resistance Army, who has been linked to the use of child soldiers. While the campaign was highly visible and well-shared on social media, it lacked the back-up of offline activism and attempts to translate online enthusiasm into offline action failed.

Other activists I spoke to, however, took a different, more balanced approach to the ways in which social media affect relationships. One activist, Marien, involved in a solidarity café, highlighted the trust required for political action that is often lacking in online exchanges as people do not have a clear idea about to whom they are talking. She did, however, make the point that social media platforms like Facebook create some opportunities for stronger personal connections than other activists might acknowledge. With so much of social life now mediated via social media platforms, those who aren't on Facebook, for example, might miss out on certain important discussions or interactions:

> when you don't have Facebook you miss a lot of stuff. Like sometimes I'm like "Oh, I didn't hear about this because I'm not on Facebook, so maybe I should go on Facebook". (Marien, Solidarity Café)

This was, however, qualified by reinforcing the weak ties thesis by saying, 'but at the same time, I think if you only had Facebook, I think these social contacts become really shallow'. This points to a balance between the weak ties of social media and the strong ties of offline relationships and organising.

Crucially, though, this maintains the element of the weak ties critique that says that radical left and anarchist organising cannot exist on social media platforms alone. As one activist put it, 'the struggle will not be on social media but beyond it' (Eduart, Doorbraak). This statement highlights well the force of the weak ties critique and how it applies to the ways in which social media have been characterised in this thesis. As communication platforms, i.e. means to facilitate debate, to share information and news, weak ties may well be sufficient. But if social media are to operate as information management systems, which support not only political discourse but also action, then strong ties between activists that allow for cohesive organisation may be vital.

10.3.3 The Political Subjectivity Critique

As well as critiquing the political economy of social media and the nature of the relationships that are formed online, a number of the activists I interviewed underlined the forms of behaviour and of thinking that social media use promotes and supports.

One important element of this critique that I will focus on here relates to the idea that mainstream social media condition the subjectivity (the agency and potential for thought and action individuals have (e.g. Blackman, et al., 2008)) of users along individualistic lines. For some theorists the architecture of platforms like Facebook and Twitter, the functionality that determines how they are used, is built around participation (O'Reilly, 2004) and collectiveness (Juris, 2012, p. 266). One activist I spoke to challenged this idea by saying that 'it fits really well, this whole Facebook and this individualistic discourse that's quite dominant' (Marien, Solidarity Café). Rather than Facebook cultivating collective participation, for her, the way people use it involves instead individualism and a valorisation of experiences in terms of 'how would this look on Facebook?' (ibid.). The critique of mainstream platforms here, then, is that they are suited to individualistic behaviour that, rather than contributing to the collective agency that is central to radical left and anarchist activism, turns on behaviours that try to maximise the number of likes, shares or retweets a picture or comment receives. This critique can be linked to the political economy critique discussed above in that the individualistic, maximising subjectivity social media are seen to facilitate is an integral part of the ideology of neoliberal capitalism.[75]

Dean argues that online communication 'reformats ever more domains of life in terms of the market: *What can be bought and sold? How can a practice, experience, or feeling be monetized?*' (2009, p. 32). This echoes the concern of the activist, Marien, quoted above. Crucially, this monetisation or quantification of experience operates on two levels. Individual users are encouraged to post content and to like and share other people's content and increase the number of connections they have with others. While these are all quantities the individual can try to maximise, trying to do so also provides a maximisation of data that can be sold to advertisers. On the one hand, mainstream social media can be understood to act as architectures that support the development of the 'highly individualised selves' (Willmott, 1997, p. 1345) that are at the centre of neoliberal ideology. On the other, they 'are seen as connecting individual subjects with consumer capitalism, making public out private selves, in order to transform the self into a set of resources' that can be turned into data and sold (Giraud, 2015, p. 130).

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[75] Related points can be made about how internet and social media use affect the ways in which human neurophysiology is shaped (see Terranova, 2012 for an overview) and more generally how personality and social interaction are manifest on social media (Amichai-Hamburger and Vinitzky, 2010).

Important here is the idea that social media platforms, because of the way they are designed, play an active role in shaping this individualistic subjectivity. It is not just that they are suited to an individualistic society but that, as one Doorbraak member I interviewed put it in the context of activism, 'they individualise left wing people' (Eduart, Doorbraak; see also Willmott, 1997, p. 1345; Fenton and Barassi, 2011). Beverungen et al. bring this management of subjectivity out in their discussion of the political economy of social media, writing that platforms like Facebook and Twitter, through coding and protocols, 'manage the free labour of users in order to render it productive' (2015, p. 483).

As Eva Giraud points out, however, identifying social media use with a one-way subjectification of otherwise passive individuals is somewhat naïve and does not take into account either the activity on the part of the individual that may contribute to their being moulded as an individualised, maximising agent, or the resistance that users might put up to processes of individualisation on social media. She draws on Tiziana Terranova (2012), Susan Leigh Star (1991) and Maria Puig de la Bellacasa (2009), among others, to argue for a more nuanced view of the ways in which even corporate technology like mainstream social media can be involved in 'multiple realisations of subjectivity' outside of their primary aims (Giraud, 2015, p. 139). In a similar vein, Beverungen et al. (drawing on Scholz, 2010) highlight ways in which Facebook users can subvert the individualising and maximising subjectivity the platform encourages. Forms of resistance inside mainstream social media may be able to turn corporate platforms into information management systems suited to radical left and anarchist activism, and may also be able to forge subjectivities more aligned towards participation, democracy and collective action. In the remainder of this chapter, however, I will look instead towards how alternative social media platforms might operate in response to these critiques. As well as providing a framework within which to discuss activist-oriented information management structures, this might also operate as a utopian image that can be used as a heuristic tool to suggest how existing, mainstream platforms can and should be repurposed by activists.

10.4 Alternative Social Media

As I have mentioned in this chapter and earlier in this thesis, the function of social media platforms at work here is less as spheres of public communication (see Fuchs, 2014a, Chapter 8 for an overview of this) and more as information management systems. The aim of this shift in focus is to highlight how social media can act to facilitate certain organisational dynamics. From an anarchist cybernetic perspective, this means that social media need to be able to support the kinds of participatory and democratic discussion and decision making that have figured above. Beer identifies information management systems as computer-based applications that exist to help users within an organisation maintain balance and stability in the face of complexity and environmental change ([1979] 1994, p. 406). In other words, information management systems are the communications infrastructures that members of organisations use to remain viable. While any communication practice and for anarchist cybernetics any specifically many-to-many communication practice can play this role, from a face-to-face, informal chat to a formal meeting or assembly, in large organisations where exclusively face-to-face communication would be problematic, or where an organisation's members are not frequently enough in one place, information management systems can play an important role. In radical left and anarchist activism, while the idea of the internet and social media as information management systems is largely missing, there are those who bring it to the fore. Shantz, for instance, quotes one anarchist media activist describing networked communication as 'an aspect of cognition' and 'externalized cognitive facilities' – descriptions that can be read as applying to information management systems as I have characterised them here (2010, p. 52; see also Jeppesen et al., 2014, p. 3; Youmans and York, 2012, p. 317). This points towards the way social media platforms can act as supports or scaffoldings for the many-to-many, participatory and democratic communication and decision-making practices of radical left and anarchist groups. It is within this framework that I want to pick out some core elements of an alternative, activist-oriented social media platform.

The aim here is not to propose a specific platform. Indeed, the alternative social media platforms that already exist (such as Crabgrass and N-1/Lorea, discussed in Chapter 8) may well incorporate some or all of the features I will discuss here. The intention is

more to identify a hypothetical-ideal model (again, as with the VSM, a model as a heuristic tool rather than as a blueprint) of an alternative social media platform that might be useful both in developing further alternatives but also in assessing the effectiveness and suitability of existing alternatives. What I am trying to present in this chapter could be read as a series of recommendations that are intended to operate in a prescriptive manner. By offering an overview of the various elements of a hypothetical alternative social media platform, however, this discussion should be taken as one that opens up a space for conversation around how alternative social media might function in the context of radical left and anarchist activism. Instead of acting as building blocks in an overall construction of an alternative platform, the various features discussed below are intended as ways of highlighting specific problems and functionalities that activists might need to pay attention to in using and developing their own social media. This intention will, hopefully, come through both in the discussion of design – which I characterise as participatory and prefigurative – and the actual form – which is speculative and meant as a set of suggestions – of alternative social media platforms.

Before I turn to the specific features of an alternative platform, the question needs to be addressed as to why there is a need for alternatives at all. The examples of the 2011 uprisings (the Arab Spring, Occupy, the Indignados/15M, the Syntagma square occupation) might suggest that mainstream social media, despite all their faults, have actually been useful in the kinds of activism I am interested in here. Indeed, platforms like Facebook, Twitter and YouTube have often been held up as important contributors to radically participatory and democratic organisation. In contrast to this, a number of the scholars I have discussed (such as Dean, Fuchs and Lovink) are highly critical of the ability of mainstream social media to act as useful tools for radical activism. While these scholars may take the analysis to far to the pessimistic side of the debate and neglect some of the potential of mainstream platforms (as I have argued elsewhere: Swann, 2014b), the critiques of mainstream social media are nonetheless persuasive (see Youmans and York, 2012 for an additional overview). As I have shown in this chapter the activists I have interviewed are often scathing of the role that they might play in their political work. The approach of the activists quoted above, however, includes both a critical engagement with mainstream social media, resisting the bad and prioritising the good, and, crucially, the desire to imagine and develop alternative infrastructures that better suit their needs and political ideals. With this in mind, the

discussion of alternatives here will not propose them as complete rejections of everything involved in mainstream social media but will instead suggest what aspects of mainstream platforms can be rescued and incorporated in alternatives alongside features that thoroughly negate the ways in which mainstream offerings operate.

10.4.1 Design

The first thing to note about how alternative social media were framed in the discussions I had with activists[76] is that the form-content distinction that is common to debates around alternative media (e.g. Sandoval and Fuchs, 2010; Rauch, 2010) was not mirrored. Instead, the distinction of importance in relation to alternative social media was that between design and form, i.e. between how platforms are developed or brought into being and how they function in terms of the organisational forms they facilitate. While I want to discuss design and technical specifications here, it should be noted that based on my lack of technical expertise in this area, the aim will be to highlight the social relationships involved in the design and development of alternative social media.

Thinking through alternative processes of design and the development of technology, cybernetics has again a lot to offer. Gordon Pask, whose ideas on functional hierarchy have figured throughout this thesis, saw a clear relationship between cybernetics and architectural design (e.g. 1969). Pickering describes Pask's proposal for a 'Fun Palace' as a way of defining architecture as a process in which users would engage with material structures in a collaborate way so as to develop a building that would be constantly shifting its internal form in response to the changing needs and wants of its users (Pickering, 2010, p. 370):[77]

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[76] Here I will eschew quoting directly from these discussions partly because the analysis at this stage involved picking out bits and pieces of detail that could be stitched together to provide a picture of alternative social media (indeed, the original interview focuses did not include alternative social media (see Appendix Two)) and partly because I am extrapolating a framework for alternatives from the critiques the activists to whom I spoke levelled against mainstream platforms.

[77] Lou Lobsinger describes this as anti-architecture (2000), but as Pickering notes this 'anti' does not 'amount to pure negation' but is instead '*another* and *different* approach that crossed the terrain of established forms' (2010, p. 370, emphasis in original). It is in this sense too that alternative social media can be defined as not the negation of mainstream social media but as 'another' and 'different'. For a similar approach to that of Pask, see the Participatory Design tradition in Scandinavia and its relationship to architecture (e.g. Ehn and Badham, 2002).

If mainstream architecture aspired to permanent monuments, aesthetic and symbolic forms drenched in meaning, and fitness to some predefined function, the Fun Palace was envisaged as just a big and ephemeral rectangular box from the outside and a "kit of parts" on the inside.

Ana Paula Baltazar (2007) picks up this thread and weaves it into an approach to architecture and design she aligns explicitly with anarchism. Based on participatory and democratic forms of many-to-many, conversational communication, she defines the aim of her 'cyberarchitecture' as 'developing tools or interfaces for possible self-organisation from the bottom up' (ibid., p. 1238). While Baltazar's field is architecture, she applies this to ICT systems as well, whereby 'programming means not to predict or create the outcome [for users], but to create tools or environments open to people's interactions' (ibid., p. 1247).[78]

Along these lines, and following the work of Mitchel Resnick et al. (2005), Baltazar highlights four elements of participatory and democratic design that are relevant to anarchist cybernetics and alternative social media (Baltazar, 2007, pp. 1247-1248):

1) the easiness to try things out and undo them;
2) the self-revealing flexibility enabled by the design (interface), because if it is not apparent it will not be used;
3) the easiness to use for first timers, though not banal to experts; and
4) the pleasure and fun in using the design (interface), so people will not need to concentrate their efforts in learning the environment but on playing.

Each of these aspects came through from the discussions I had with radical left and anarchist activists. A core aspect that emerged in the interviews was that the development of alternative media ought to be democratic and participatory, with low barriers of access and should involve a simplification of things like programming and coding to facilitate this. This would require less specialisation in development so that more activists could participate. Another important aspect in this regard is that existing software applications should be easily combinable in platforms (something Baltazar

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[78] Important in this regard too is the Scandinavian tradition of Participatory Design (e.g. Robertson and Simonsen, 2013).

touches on: 2007, p. 1249), much in the way that widgets, apps and extensions[79] can be added to Wordpress sites or to the Firefox web browser.[80] This would allow for developments from all over the world to converge in specific platforms in the ways that the core users of those platforms see fit. There would not need to be a 'one size fits all' platform but rather adaptable platforms that, like the Fun Palace, can be shaped and reshaped according to the activists using them. Rather than simply designing and developing a single alternative social media platform, this process would involve the development of specific applications that could be combined in a 'plug-and-play' fashion.[81] This reflects the peer-to-peer architecture that is central to the Open Source movement (see e.g. Kelty, 2008). In terms of design, then, alternative social media development should not be seen as the purview of professional or experienced programmers. An anarchist cybernetic approach to design would see it as a practice in which the anarchist and radical left organisational forms of participation and democracy allow for a continual process of bringing technology and activism together in ways that do not predict the outcome but leave space for activists to determine their own social media platforms.[82]

Indeed, such an approach has pedigree in the anarchist tradition as well as in that of cybernetics.[83] On the one hand, Michael Truscello and Uri Gordon (2013, see also Gordon, 2008, Chapter 5) note that Pierre-Joseph Proudhon was among the first to identify technology and machines as sites of social relations. On the other, later anarchists such as John Clark (1984, p. 197) link technological development to,

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[79] Widgets are small software applications that operate within websites and with a specific and limited functionality. Common examples include clocks, calendars, feeds from Twitter and viewer statistics that show up on websites, often in a column at the side of the page.

[80] Firefox, a free and open-source web browser from the Mozilla Corporation, allows users to create applications and extensions that can be installed on individual browsers to customise a users' web browsing experience. One popular example is the Adblock Plus extension that stops advertisements from being shown on websites (adblockplus.org).

[81] Plug-and-play is used to refer to pieces of hardware that when connected to a computer (via a USB port) will run automatically and do not require any special action from the user. Here it refers to pieces of software that can be combined and will run together without users having to configure them to do so.

[82] There is a concern here that what is being proposed is a user-friendly approach to social media, extending this from the user interface to the design and development of platforms. While user-friendliness can be lauded as bringing down barriers of access, it can also be seen as an authoritarian control mechanism through which regulation and domination take on participatory guises (Best, 2010).

[83] Despite these ideas coming from cybernetics, as Werner Ulrich (1981) points out (as does Medina, 2011), Beer's Project Cybersyn operated less as a participatory design project and more as a top-down, technocratic one. Ulrich's call to recognise that 'all design of tools represents *somebody's* solution to *somebody's* problems' (1981, p. 33, emphasis in original) and for normatively-aware design processes, leads in a similar direction as the anarchist cybernetic approach discussed here.

comprehensibility; compatibility with aesthetic values; feasibility of continual reassessment and fundamental redesigning in relation to analysis of needs; multifunctionality; capacity to fulfil basic human needs; […] incompatibility with technocratic and bureaucratic structures; compatibility with democratic control of society, decentralized decision-making, and non-hierarchical social structures; conduciveness to production process involving enjoyment, creativity, and human development.

Here, much of the requirements for open, continuous, participatory and democratic development that are so central to the cybernetic approach are mirrored. The design and development of alternative social media too needs to be considered as prefigurative from an anarchist cybernetics standpoint (see also, Collister, 2014, p. 771; Jeppesen et al., 2014b).

With this in mind, the comments below as to the form of alternative social media can be taken, in line with the participatory political philosophical approach outlined in Chapter 4, as one part of a wider conversation between myself, the activists I interview and those reading this thesis who might engage in participatory and democratic design processes aimed at developing alternative social media. This is in addition to the broad academic debates around cybernetics, anarchism, alternative organisation and social media.

10.4.2 Form

Communication Platform

While the focus here is on how alternative social media might operate as information management systems, there is of course still a need to discuss how this involves communication functions. Indeed, as I have stated throughout this third section of the thesis, communication and information are intimately connected to successful organisation, seen from an anarchist cybernetics perspective. Going beyond the basic characterisation of the nature of the relevant communications practices as many-to-many, I want to outline several communication features that alternative social media might incorporate, based on points raised by the activists I interviewed and on my

reflections on the critiques highlighted above and the discussions in the previous chapters.

Forums for conversation and discussion. As the fundamental nature of many-to-many communication would suggest, forums (both open to all users and with varying degrees of privacy) are essential. From traditional internet forums to the post-specific conversations of Facebook, such functionality should be reflected in alternative platforms.

Direct messaging. As well as many-to-many forums, an alternative social media platform would require the capability for users to send private messages directly to other users. While many-to-many communication reflects the participatory character of radical left and anarchist organisation, there will of course be a need for activists to communicate outside of this paradigm.

Sharing with meme/viral potential. One of the strengths of mainstream social media is that messages and information users post can be 'liked' or 'favourited' (to use the parlance of Facebook and Twitter respectively) by other users to highlight its value and can be 'shared' or 'retweeted' by others to those to whom they are connected ('friends' or 'followers'). This allows posts to snowball in popularity and spread across various networks in a meme or viral fashion.[84] For an alternative platform, this would still be crucial in getting the word out and spreading information.[85]

News feed with curated and user-generated content. The main user interface would, like mainstream platforms, need to include a news feed where users could see both user-generated content from others and information and posts from sources like websites and newspapers that other users have chosen to share.

PR function. One interesting point that was raised in the interviews I conducted was the need for an easy way for groups to liaise with journalists and to send press releases to the right people. This could be manifest as an application that might coach activists in constructing press releases and that had a list of journalists and newspapers known to be receptive with an easy way to send the press release.

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[84] The idea of memes comes from evolutionary biology where it is used to explain how culture is transmitted from one generation to the next. More generally, the term has come to refer to any concept or image that spreads around the internet, the meaning of which is widely and easily understood. Meme's are often altered in small ways to reflect a specific trope-like response to a new situation.

[85] Science-fiction author and blogger Cory Doctorow describes this process well, and in relation to information overload (Doctorow, 2011, p. 66): 'Now what happens is that I can't even read all my RSS feeds or e-mails or tweets, much less the novels or events they are about. But the good stuff bubbles up anyway because of reblogging, retweeting, whatever you want to call it.'

Linking between other alternative and mainstream platforms. Rather than have alternative social media remain small and niche, platforms could have ways of linking with other alternatives and also with mainstream social media. Functions such as being able to cross-post information[86] to multiple platforms could help create a federated network of alternative platforms and remove the need for a single activist alternative.

Central hub of resources. One feature that would be useful in an alternative platform would be a set of resources activists could access that could help them both online, such as information on how to develop applications or maintain privacy, and offline, such as guides to direct action, facilitating meetings or producing propaganda material.

Noise and overload filters. As Chapter 9 highlighted, filters for noise and information overload are essential with social media communication. While mainstream platforms rely on algorithms to filter,[87] this removes the element of autonomy and can contribute to shaping the subjectivity and behaviour of the user in a specific way (see above). Instead, therefore, an alternative platform might involve participatory and democratic moderation or options that would allow users to categorise posts so that users could specify what kinds of information they received. If this was not feasible, an alternative platform might make use of algorithms that come under democratic discussion and are agreed upon by the users of the platform.

Over-use/addiction warning mechanisms. To avoid the problems associated with over-use of social media, and to encourage users to focus on offline organising, an alternative platform might include features that alert users to spending too much time logged in or ways in which users can set time limits after which they will be logged out for a set period of time.[88]

Information Management System

Looking at social media as information management systems, the points of interest here respond to the discussions elsewhere in this thesis of tactics, strategy and grand strategy, on the one hand, and autonomy and decision making, on the other.

General assembly function. A core feature of the anarchist cybernetic version of Beer's Viable System Model is the separation of radical left and anarchist organisation into autonomous day-

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[86] Cross-posting is where information is simultaneously posted to several social media platforms.

[87] For example, the website Yahoo Answers (yahoo.com/answers) makes use of algorithms to filter our abusive but also poor-quality questions and answers from users (Kucuktunc et al., 2012; on the role algorithms and code play in shaping social action, see Mackenzie, 2006).

[88] Productivity applications, such as Get Cold Turkey (getcoldturkey.com), play a similar role. Added to web browsers such as Firefox (see footnote 80 above), these pieces of software block users, at their request, from certain websites for set periods in order to help the user focus on something else (i.e. study, work, etc.).

to-day tactical work and more centralised strategic and grand strategic decision making at meetings and assemblies. To facilitate this latter aspect, an alternative social media platform should allow for activists to engage in participatory and democratic discussions with decision making tools (voting, consensus, vetoing/blocking, etc.) embedded in the forum interface.[89]

Pad functions. In terms of facilitating such online discussions, the inclusion of applications such as collaborative pads (whereby multiple users can contribute in real-time to writing documents such as meeting agendas, minutes and statements) could perform an important function. Collaborative pads support participatory, many-to-many communication and remove the power certain individuals might have in steering meetings and assemblies by drawing up agendas and minutes in specific ways.[90]

Memory/narrative. One problem that was highlighted with mainstream platforms is their failure to facilitate narrative construction or to support the kind of 'memory' that is important to social movement identity and grand strategy. Mechanisms that underline the decision-making and organising history of groups and that move away from the constantly updating stream of information common to Facebook and Twitter could play a central role in alternative platforms.

File-sharing and knowledge exchange. In order to encourage the exchange of knowledge and information, an activist-oriented alternative social media platform might include within its architecture file-sharing applications.[91] While mainstream platforms allow users to share documents, an alternative could see the ability to share large files (videos, audio files, large collections of documents and other resources).

Procrastination. One of the biggest failings of existing alternative platforms, some of the activists I interviewed reported, is that there is too great a focus on serious organisational functions and too little ability for users to spend time procrastinating on the platforms (Cabello, Franco and Haché, 2013, p. 344). While procrastination can be seen as wasting time, it can also be understood as time spent in a community forming relationships and developing the kind of collective identity that is crucial to strategy and grand strategy. This is something radical left and anarchist movements have facilitated through social centres, squats, cafés and bars, as well as in the long-durations spent in protest camps (see e.g. Leach and Haunss, 2008). An alternative

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[89] Loomio is one application that currently plays a similar role. It is an online space for groups that makes use of voting procedures on proposals and is based around collaborative decision making (www.loomio.org).

[90] Riseup Pad is a version of the pad application that allows users to collaborate in real time on a document (pad.riseup.net).

[91] With torrent files, users are able to download a small file of data from a website which allows their system to locate and download larger files from a network. This is the most common form of file-sharing on the internet and is how users can download films and music. Pirate Bay has become synonymous with file-sharing and allows users to upload torrent files that others can download and use to access larger files.

social media platform could perform a similar function if it allows for the kind of procrastination and fun experiences mainstream platforms thrive on.

Online decision making embedded in offline structures. With the purpose of online, social media platforms being to support offline organising and political action, it is important that the activities activists can engage in online not replace offline ones. To this end, the decision-making procedures facilitated by alternative social media should be clearly subordinate, where possible, to offline meetings and assemblies. This might have more to do with activist training and education than with the architecture of an alternative platform. For example, the decisions made in online assemblies could be recallable at face-to-face, physical assemblies so that offline activism is prioritised.[92]

Sections open to non-users. As well as facilitating organisation and action for members of radical left groups who are users of an alternative platform, to enable non-users to participate in offline activism supported by such a platform, certain sections could be made open to non-users. This could include sets of resources and specific details of planned offline meetings and actions.

Architecture for collective autonomy. I noted above that mainstream platforms can be seen to support an individualist subjectivity through the way they mould online behaviour. An alternative could avoid this and focus on collective autonomy rather than individualism by shifting to an architecture that limits the ability of individual users to manage their profiles as a commodity or to try and maximise likes and shares of posts. An architecture based on group membership could work towards achieving a balance between individual and collective action.[93] As such, users might only be able to access the platform as a member of a group, although this would have to be balanced with the need for the possibility of procrastination. This reflects the core aspect of anarchist cybernetics of defining an individuation through the fostering of collective modes of autonomy.

Flexible engagement options. In finding this kind of balance between too much autonomy and too much centralisation, and in taking into account the problems associated with burnout and fatigue in social movement activism, an alternative social media platform could make use of a function whereby users could explicitly take a step back from online activism, by indicating on their individual profile that they were still active but 'away' or that their time at a particular moment was limited and so could not be expected to participate in everything or respond to every message. This could work similar to how automatic email responses do.

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[92] George Kokkinidis (2014) discusses something similar with workers' cooperative. Members are able to make on-the-spot decisions autonomously but such autonomous decisions will come up for discussion and can be revoked at general assemblies where all members are present. A similar mechanism could operate in radical left and anarchist groups whereby decisions made online need to be ratified at offline meetings.
[93] This is something the platform Crabgrass, discussed in Chapter 8, does (see Hirsch, 2011).

Responsibility and commitment. While such flexible engagement should be enabled, there would still need to be mechanisms built into the architecture of an alternative social media platform to foster responsibility and commitment among activists. Perhaps action points arising in meetings could be linked directly to specific users, who would then receive updates alerting them to agreed deadlines so that responsibilities are clearly delineated. This could also involve functions whereby members of a group could formally chastise or express displeasure with a member who had not completed an assigned task without good reason.

Privacy, security and data. In terms of privacy and security, an alternative social media platform should make use of, or allow activists to choose to make use of, online anonymity tools such as Tor and VPN.[94] This might mean users being able to access the platform through services like these, thus concealing their location and identity. Or it might mean having open, public sections of the platform alongside anonymous, protected section where users could enter to have discussions in the knowledge that they are free of surveillance, making use of applications such as Cryptocat or Riseup Pad.[95] As well as these privacy features, in response to the political economy critique outlined above, an alternative platform would need to make sure that users' data was not stored and made accessible to advertisers, corporations or law enforcement agencies.

Easy backup of information. With mainstream platforms, Facebook specifically, being known to have deleted pages of radical left groups in the past, one important feature of an alternative platform would be to make the data from the page of a radical left group (contacts, decision history, resources, etc.) easily downloadable as a backup file. If for whatever reason (e.g. malicious hacks, law enforcement compliance) a groups page was deleted the information would not be lost and the group could easily set up another page and carry on as normal.

10.5 Conclusion

This framework, for an alternative, activist-oriented social media platform should not be taken as a prescription for designers and activists to apply. Rather, it represents one side of a conversation. It is my contribution to both scholarly and activist debates around what an alternative social media platform should do and what it should look like. Like

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[94] Tor is a software application that prevents the user's data and online activities being tracked back to them (www.torproject.org). A VPN (virtual private network) is a network that a user can access that allows them to use the internet while remaining anonymous (e.g. help.riseup.net/en/vpn).
[95] Cyrptocat allows for online chats, like an instant messenger service, that are encrypted (crypto.cat). Riseup Pad does not store users' IP (internet protocol) addresses and destroys all data after 30 days (pad.riseup.net).

all activist innovation, the actual design and development will need to be a prefigurative, democratic and participatory process that allows activists to engage in defining platforms as information management systems that work for them. Indeed, this is what has happened in radical left and anarchist social movements. In the 1990s and 2000s, activists developed the Indymedia website network that acted as a user-generated, independent and radical alternative media. In many ways this prefigured the participation and user-generated focus on social media. Around the 2011 uprisings, activists responded again to the deficiencies of mainstream social media by developing their own (some of which I have discussed in Chapter 8 and in this chapter). So the argument here is not that alternative, activist-oriented social media do not exist but rather, it operates as a contribution to the ongoing experimentation with these alternatives and attempts to bring the reflections of the activists I interviewed into these discussions. At the same time, this chapter has tried to elaborate on how an alternative social media platform would need to take into account the organisational and communication dynamics of radical left and anarchist organisation, something anarchist cybernetics can help elucidate.

As an information management system, an alternative social media platform would in many ways be an update of and improvement on Project Cybersyn. Beer and others tried to create a system that would allow workers to self-manage production and regulate the economy without the need for top-down, hierarchical control. In line with the insights of cybernetics, that on which anarchist cybernetics builds, control was to be dispersed throughout the network of factories. While this was not achieved and, as I have noted in this chapter and in the previous one, the system operated more as a tool of top-down management than as one that empowered workers, the core aims can be carried through into an alternative social media platform. Beer imagines 'cybernetic man [sic]' as someone in a chair with control panels and screens on the wall depicting all the important information needed to make decisions (1974, p. 69, see Figure 4). A network of these individuals, linked together into a collective, could, Beer argues, manage a society along the lines of self-organisation. Despite the isolation and atomism inherent in this image of individuals stuck in their private rooms communicating via computer, this depiction can help explain how an alternative social media platform might work within an anarchist cybernetic model of organisation.
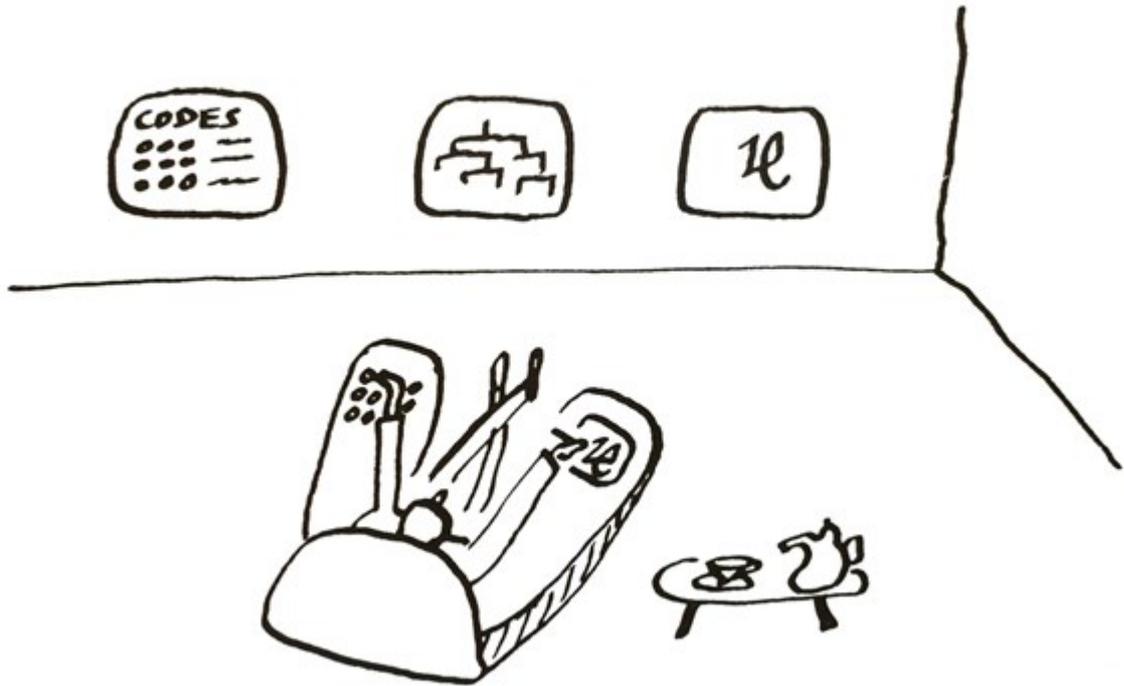
Figure 4: 'A Better Outlook for Cybernetic Man', from Beer's Designing Freedom (1974, p. 69).

Replace the chair, its control panels and the screens with a smartphone or a laptop; take the individual out of the private room and put them into a social movement, on the streets. This is how an alternative social media platform might work, as an information management system that helps facilitate the offline, face-to-face organisation of anarchist and radical left activism. Social media should not be seen as a replacement of offline activism but as external scaffolding that supports it. By making possible participatory, democratic decision making, by creating space in which tactical autonomy and strategy and grand strategy cohesion can be balanced, by allowing for a prefigurative and active engagement with technological development, an alternative social media platform can play a crucial role in contemporary radical social movements. While this role should not be exaggerated, neither should it be underestimated or neglected. In this chapter, I have connected the strands of anarchist cybernetics and radical left and anarchist organisation into a practical and pragmatic tool activists can use. I have hopefully made a valuable contribution to both activist and academic discussions on the existing and potential function of social media in activism today.

CONCLUSION

Chapter 11 : 2015, the Return of the Mass Party

11.1 Anarchist Cybernetics

The aim of this thesis has been to draw out some of the connections between Stafford Beer's organisational cybernetics, on the one hand, and anarchist theory and practice, on the other. Ultimately, I hope to have been able to begin to sketch out some of the characteristics of what I have called 'anarchist cybernetics'. While this remains a proposal it can be used as a heuristic device to identify problematic areas of social movement practice.

There are two sides to cybernetics to which this thesis has tried to attend. Firstly, there is the focus on organisation and on control. Here, I have characterised the form of control that cybernetics helps to articulate as self-organisation. In the context of radical left and anarchist social movements, self-organisation comes down to democratic and participatory decision making and a prefigurative form of action that aims to create non-hierarchical, non-dominating and non-exploitative relations in the here and now. Structurally, I have described how looking at this from a cybernetics perspective means thinking about hierarchy; not, to be sure, a hierarchy of people or of offices within the organisation, but of functions that individuals can shift between depending on the particular roles they are performing at a given moment. Secondly, looking at organisation through the lens of cybernetics means examining the nature of communication and the role it plays in how groups organise. For cybernetics, communication and information are intimately connected to organisation and, as I have shown in the third section of this thesis, the communication infrastructures social movement organisations make use of are fundamental to how those involved are able to organise in a participatory and democratic way. Ultimately, I have suggested alternative, activist-oriented social media platforms, understood as information management systems, as the tools that might bring communication and organisation

together in radical left and anarchist groups. Drawing on cybernetics has helped here by providing an understanding of how communication fits with organisation.

What then are the core contributions this thesis has been able to make to understandings of radical left and anarchist social movement organisation? What has the anarchist cybernetics I have attempted to outline resulted in thus far?

11.1.1 Functional hierarchy

Perhaps the most important theoretical contribution both to anarchist theory and to the study of organisation more generally is the concept of functional hierarchy. A core concept in cybernetics (in Chapter 3 I drew on the work of Gordon Pask and Stafford Beer), functional hierarchy refers not to a structural arrangement whereby some parts of the organisation are subordinate to others, but to an arrangement of roles. Some roles depend on frameworks and priorities that are developed as part of other roles. As such, these second roles can be said to be functionally higher than the others. A functional hierarchy may be facilitated by a structural hierarchy where these roles are fixed into specific offices or parts of an organisation, such as in corporations a hierarchy of CEOs, high-level managers, mid-level manager down to workers at the bottom. In terms of political organisation, it could also be facilitated through the top-down structures of traditional political parties and trade unions. An anarchist approach to functional hierarchy, on the other hand, suggests that what is, according to cybernetics, an essential element of organisation can be facilitated through a flexible structure whereby different individuals can step into different roles depending on the situation at hand. As such, a functional hierarchy could be put to work without the structural hierarchy anarchists are opposed to.

11.1.2 An Anarchist Viable System Model

One of the ways the functional hierarchy has been presented is in the Viable System Model of Stafford Beer. Beer's model aims to account for the flexibility an organisation needs in order to be able to respond to changes in its environment and in the organisation itself (what in cybernetics is referred to as variety and which creates a

condition of complexity). The functionally lower parts of the organisation need to have a certain level of autonomy in order to be able to respond to complexity in their own niches in the ways they see best. Were all decisions to go through a strict chain of command, the organisation would become too rigid to deal with complexity. Autonomy is, therefore, crucial for a cybernetic understanding of organisation. Within an organisation, however, this autonomy is limited and an understanding of functional hierarchy helps articulate these limits within a democratic structure. While the autonomy of functionally lower roles in the organisation is limited, in line with the priorities and frameworks set out in functionally higher roles, the fact that this is not replicated in a fixed structure and that these roles are open to all members of the organisation suggests how this picture might fit within a democratic and participatory account of organisation. For radical left and anarchist organisation, this means developing a form of Beer's VSM that represents these organisational functions (through working groups and individual activists at the lowest level and general meetings and assemblies at the highest) in such a way as to link up with anarchist concerns around structural hierarchy and the need for democratic participation at all levels of decision making.

11.1.3 Tactics, Strategy and Grand Strategy

Another way of looking at these functionally different roles within an anarchist organisation that I have introduced in this thesis is through the distinction between tactics and strategy. The functionally lower levels of the organisation can be said to have a level of tactical autonomy that is framed and restricted by the strategic decisions that are made at functionally higher levels. This was the first major point in this thesis where my discussions with radical left and anarchist activists in the Netherlands came into play. As well as highlighting how functionally higher, strategic decision making can be practiced in a democratic way, these discussions also helped elaborate on the importance of strategy for anarchist organisation and on the need for an understanding of functional hierarchy. I pointed towards a number of examples, notable amongst them the Dutch Occupy camps in Amsterdam and Nijmegen, where discussions of strategy were lacking and, as a result, a sense of coherent organisation broke down. While a too-rigid structural hierarchy can lead to an organisation becoming unresponsive and

sluggish, too flexible a structure can contribute towards a distinct lack of organisation, with individual parts enjoying so much autonomy that they cannot be said to be members of the same organisation.

In addition to highlighting, on the back of this discussion, the importance of strategy as well as tactical autonomy for an anarchist cybernetic understanding of viable organisation, the distinction between tactics and strategy can also be expanded to include grand strategy. This has been introduced to take into account the overarching paradigms or worldviews of radical left and anarchist organisation which, when operating, help frame both tactics and strategy within broad social movement goals. When grand strategy is lacking, similar problems can be seen as when strategy is lacking, i.e. a break-down of organisation. While grand strategy often goes un-discussed as an implicit framework, I have tried to show that an anarchist version of the VSM can help account for moments where this level of the organisation does come under discussion, and in a democratic and participatory way. Importantly, this account of tactics, strategy and grand strategy highlights the role of a balance that must be found between autonomy and centralisation.

11.1.4 Functional Autonomy/Ethical and Political Autonomy

Taking this need for a balance between autonomy and centralisation (or perhaps better, cohesion) as a cornerstone of anarchist cybernetics, another important discussion that has been raised in this thesis is of the specific nature of autonomy in anarchist and radical left organisation. On the one hand, cybernetics and Beer's work in particular points towards a functional account of autonomy whereby autonomy is seen exclusively as the scope individuals and sub-groupings have within an organisation to make their own decisions about how best to respond to complexity. For anarchists and other radical left activists, autonomy has another meaning. Instead of being defined in relation to organisational viability, autonomy is seen as crucial to individual and collective development and emancipation. However, while an anarchist cybernetics may well reject functional autonomy as the *exclusive* definition of autonomy in organisational settings, it is able to include it *alongside* an ethical and political autonomy whereby the freedom individuals and groups have is valued as a good in and of itself. What anarchist

cybernetics helps articulate is the two sides to the anarchist coin. One side represents the functional need for viability which can be best achieved through a certain level of tactical autonomy that is balanced with the need for strategic cohesion. The other side represents the ethical and political value of autonomy as an overarching goal of anarchist and radical left organising. It is a commitment to both a functional autonomy and an ethical and political autonomy that sets anarchist cybernetics apart from Beer's organisational cybernetics and that distinguishes between anarchist organisation in particular and organisation in general. As such anarchist organisation can be seen as importantly different from other types of organisation, such as the firm.

11.1.5 An Anarchist Response to Noise and Information Overload

As well as control through self-organisation, the other side of cybernetics that has been discussed here is communication. Due to the buzz surrounding it during the 2011 uprisings and after, as well as the potential it might hold in terms of facilitating organisation, I have focussed on social media as one way of examining the communication aspects of anarchist cybernetic accounts of organisation. While social media has not figured as much on the Dutch radical left as it might have done in the Occupy movement, the Arab spring and other uprisings (although even here its presence can be overstated), the activists I interviewed highlighted some important problems that emerged from their use of social media in the context of radical left and anarchist activism. Social media users being overloaded with too much information and experiencing the content of platforms as noise that has to be waded through to find relevant information are two such problems that are central to how communication and information operate on social media. While some responses might involve algorithms or moderators that check for noise and overload, and present users with a smaller range of content, this could operate in an authoritarian manner whereby a system (or even a set of individuals) would decide what information users receive. Given that a cybernetic account of communication and information relates these to the act of organising, this suggests a top-down approach that is not in keeping with anarchism. Instead, a more participatory and democratic approach to filtering for noise and overload may be needed in which users can collectively decide on the mechanisms that help them use

information to organise in ways that do not contradict the ethical and political values of anarchism.

11.1.6 Alternative Social Media Platforms

In identifying these kinds of mechanisms, this thesis has also involved a broader discussion of how control as self-organisation, on the one hand, and communication practices, on the other, converge in social media platforms. While both the activists I interviewed and critical academic consensus on the topic show a clear scepticism as to the usefulness of mainstream social media platforms, such as Facebook and Twitter, for radical left and anarchist social movement organising, I have tried to suggest that there is still something in social media that may be salvaged. Understanding social media as information management systems that can facilitate participatory and democratic organisation, the possible features of a suggested alternative social media platform have been outlined. Ttaking social media beyond their mainstream limitations and situating alternatives in the context of radical left and anarchist organisation, this aims to provide not a prescriptive model of how alternative social media ought to be developed but a proposal that draws on the discussion of anarchist cybernetics. It is one of the ways this thesis might feed back into radical left and anarchist movements. The framework for an alternative social media platform included in Chapter 10, therefore, should be taken as one overall product of this thesis but also as part of a wider, already-existing conversation around social media and activism.

11.2 Strengths and Weaknesses

The work contained in this thesis aims to develop and discuss a potential anarchist cybernetics and in this regard is often quite speculative and necessarily broad in focus. Before concluding, there are a number of critiques that might be levelled against this approach that I want to consider.

11.2.1 Functionalism

In Chapter 2, I highlighted some of the critiques that have been levelled against cybernetics. The most important of these for discussions of organisation is the charge that cybernetics can be located within what Gibson Burrell and Gareth Morgan call the 'functionalist paradigm' of sociology (1979; see also Holmwood, 2005). On the one hand, functionalist sociology is committed to a positivist ontology that takes the world as an objective reality that the social scientist can analyse and from which he or she can draw sound and valid conclusions. On the other hand, it is also linked to the idea of 'social engineering as a basis of social change': '[i]t is concerned with the effective "regulation" and control of social affairs' based on maintaining an equilibrium or status quo (Burrell and Morgan, 1979. pp. 25-26). On this basis, the social scientist – or indeed anyone with a correct understanding of social reality, such as a manager or political leader – is in a unique position to steer organisations in a specific way. This is reflected in the critique of cybernetics made by Hugh Wilmott discussed in Chapter 2 and in that of Werner Ulrich discussed in Chapter 9. The first thing to note is that the charge of positivism does not apply to the anarchist version of cybernetics I have presented and discussed here. Anarchist cybernetics, in so far as it is concerned with ontology and epistemology, draws on second-order cybernetics which takes reality as socially constructed and knowledge as a pragmatic engagement bound up with action. But does the latter charge, of social engineering, apply to anarchist cybernetics?

Rather than see anarchist cybernetics as a continuation of those elements of cybernetic thought that may well adhere to a functionalism when it comes to organisation, I would instead view it as a development that goes beyond these (potential) limitations of earlier forms of cybernetics. Is it concerned with regulation and control? Yes it is, but not if these are understood as top-down processes conducted by privileged individuals or groups based on a positivist approach to knowledge. Regulation and control can also be understood through processes of self-organisation and participatory, democratic decision making. So while anarchist cybernetics does help in identifying the functions that are at work in radical left and anarchist organisation (for example, tactical, strategic and grand strategic decision making) it aims to do so in a way that eschews both positivism and authoritarian, top-down command. Fundamentally, and this is an

important distinction in so far as the charge of functionalism is concerned, anarchist cybernetics is not a sociological paradigm. It is indeed a heuristic tool that activists can use to understand their own organisational and communication practices, and to grasp the dynamics of self-organisation that can help them organise in both effective and ethically and politically appropriate ways (appropriate, to be clear, according to their own conceptualisations of anarchist and radical left values).

11.2.2 Organisational Culture

It could be argued that Beer's organisational cybernetics owes a great debt to early twentieth-century debates around management and organisation (indeed, the charge of functionalism rests on this), at least in so far as it prioritises the structure of organisation and the networked linkages between the different parts of an organisation. While this may well generalise to too great an extent and exclude those elements of Beer's work that deal with meaning, myth, spirituality and culture, taking organisational cybernetics as a starting point runs the risk that these aspects of organisation are dismissed as of secondary importance. Anarchist cybernetics runs this very risk. What I have tried to present in this thesis are the tools that can be used to approach the organisational structure of radical left and anarchist organisation, and I have tried to begin to use them to highlight some of the problems raised by participatory and democratic organisation and the potentials for social media in this context. I have focussed specifically on the functioning and structure of these organisational forms and the ways in which communication practice relate to this functioning and structure. Undoubtedly, this is only one side of a many-sided story and I do not want to claim here that a discussion of organisational structure is or should be the totality of accounts of radical left and anarchist organisation. I want to suggest very briefly then the ways in which an approach that looks at organisational culture might be included in the analysis.

Firstly, there are the less tangible elements of organisation, including the narratives, the myths, the meanings that are attached to situations, processes and people (see e.g. Parker, 2000; Grey, 2005; Brewis and Jack, 2009). While the concept of grand strategy developed in Chapter 6 goes some of the way towards realising the importance of culture and narrative in radical left and anarchist organisation, the way I have discussed

it here has focussed on how it fits into organisational structure, i.e. how a functional hierarchy can help identify where narrative sits in terms of decision making. More could perhaps be done to examine the role of narrative and culture throughout the organisation. Secondly, there is the role of power in these kinds of organisation. The organisational structure described with the help of anarchist cybernetics neglects the ways in which asymmetries in power within the organisation can negate the potential for genuinely democratic organisation (see e.g. Foucault, 1978; Knights, 2009). Within a seemingly egalitarian structure, power might operate in such a way that certain individuals have a greater potential to dominate or to steer discussions in a certain direction. This is a common critique of anarchist forms of organisation where seemingly democratic structures in fact conceal relationships of domination (Freeman, 1970). A general assembly where everyone is able to participate might not guard against some having more influence in the group than others. Last, but certainly not least, is an appreciation that postcolonial, queer and feminist theories (see e.g. Brewis, Hampton and Linstead, 1997; Banerjee and Linstead, 2001; Prasad, 2003; Brewis and Jack, 2009) might bring to the discussion of radical left and anarchist organisation. While the discussion of anarchist cybernetics is historicised in the sense that it situates the specific dynamics and practices of radical left and anarchist organisation in a particular stage of neoliberal capitalism (as the discussion of social media in Chapter 10 highlighted), it has not done so in terms of how race, colonial history, sexual identity or gender are concerned.

11.2.3 Interdisciplinarity

One major concern of mine in completing this thesis relates to the fact that it represents a point at which several academic disciplines converge. While rooted in cybernetics and anarchist theory, it at the same time draws on a range of fields including critical management studies, political philosophy, digital humanities, media and communication studies and social movement studies. While interdisciplinarity is a widely used research strategy (see e.g. Barry, et. al, 2008), it does raise several problems for a single piece of work, such as a PhD thesis. Because of the range expected in interdisciplinary work, some commentators associate it with amateurism, an undisciplined flakiness and a lack of academic quality (Jacobs and Frickel, 2009, pp. 51-52; Jacobs, 2013, p. 2). This is a

potential criticism and a major worry, and some of the debates approached here could have been treated in more depth. But the strength of the thesis is that it tries to articulate the contributions that different disciplines can make to the problems I have aimed at investigating. More than that, in writing this thesis, I have of course kept in mind certain audiences – primarily anarchist studies, cybernetics and critical management studies – and so it is in these fields that I have conducted the most research. Dipping into other fields – social movement studies, media and communication studies, political philosophy – has ultimately been less an exercise in grounding the work than it has been one of bringing certain scholars into conversation with the core audiences I have had in mind.

Cybernetics perhaps represents the interdisciplinary project *par excellence* in so far as it aimed to bring insights from a wide range of disciplines together to work on complex problems of control and communication. But cybernetics, of course, was not the project of a single individual and the Macy Conferences gathered these wide-ranging insights not through reviews of certain literatures but by getting key researchers together in the same room. While the discussions in this thesis might appear superficial to someone more versed in the disciplines on which it draws, I would defend this approach by noting two things. Firstly, I cannot see how it could have been done any other way. No one of these disciplines could have provided the resources required to examine how anarchist cybernetics can be applied to radical left and anarchist organisation. And in any case, the disciplines mentioned above, with the exception of political philosophy, are themselves interdisciplinary, so perhaps it could never have been avoided. Secondly, the aim here has not been to interrogate to its deepest depths either anarchist cybernetics or certain forms of organisation. Instead, what I have tried to do is provide an overview of how an anarchist cybernetics might be articulated and how this might be put to use in elaborating on the dynamics of radical left and anarchist organisation. I want this thesis to be the start of a series of conversations, within academia but more importantly among activists and between activism and academic disciplines, rather than the end of one.

11.3 Anarchist Cybernetics In and Beyond Social Movement Organisations

In the introduction to this thesis, I pointed out one of the core inspirations for the research presented here were the 2011 uprisings (the Arab Spring, the Spanish and Greek square occupations, the UK riots and the Occupy movement). I suggested, as others have, that anarchist ideas and practices of organisation could be seen in these movements, primarily in terms of their organisational form and the ways in which they practices direct, participatory democracy. As I have tried to show throughout, anarchist cybernetics can be used in elaborating on our understandings of these kinds of organisation, and through concepts such as functional hierarchy, functional autonomy and ethical and political autonomy, we can better understand the structural dynamics of radical left and anarchist organisation more generally. More than this, however, I have also argued that anarchist cybernetics helps articulate the role that social media might play in facilitating these dynamics. Social media platforms were, after all, thought to have been at the heart of the 2011 uprisings and it has been argued that it was precisely these democratic organisational structures that they helped to flourish. Writing this now, in 2015, that year of protest and revolution feels a long time ago. Four years might not be long in politics, but much has changed. The optimism of 2011 has faded, with the uprisings in North Africa and the Middle East ending up largely in renewed dictatorships or civil war. In North America, Occupy faded and despite a brief resurgence in response to Hurricane Sandy, self-organisation and decentralisation has not featured highly on political agendas. There, the recent focus has been on defending communities from racist, violent and authoritarian policing.

But is this really the whole story, and the whole legacy of 2011? These tragedies notwithstanding, there have been important developments in terms of radical politics. Across Europe, while there has not been anything resembling the scale of the Indignados/15M or Syntagma Square protests, and Occupy has largely disappeared, there has been a surprising return of the mass party to left-wing politics and 2015 has been described as the 'year of elections' (Milburn, 2015). In Greece, Syriza emerged on the back of large protests against austerity to win the elections in January and (despite the radical left splitting from the party) in September 2015 (although by the time anyone reads this the situation in Greece may have changed again). In Spain, Barcelona en Comú won municipal elections in Barcelona in May 2015 and Podemos is expected to do well in the elections in December. In the UK, the Green Party of England and Wales has seen a surge in membership and in popular support, even if the electoral system

makes it difficult for them to have a major breakthrough, and the Labour Party seems to be swinging to the left with the election (on almost sixty per cent of the vote) of Jeremy Corbyn as leader in September. In Scotland too, following the independence referendum in September 2014, the Scottish National Party's membership has increased five-fold, it has won all but three parliamentary seats in Scotland at the May 2015 General Election and is expected to win more than 50% of the popular vote in the 2016 Scottish Parliamentary Election, largely a result of an (albeit dubious) anti-austerity, left-wing stance. If 2011 was a high-point for radical left and anarchist organisation, 2015 might represent a return to mass parties of the left and radical left. If so, might anarchist cybernetics be of use yet in exploring the organisational dynamics of a more institutionalised radical left politics?

At its root, anarchist cybernetics tries to show how a level of decentralised autonomy is essential to radical left organisation because (1) it helps them operate in a viable and effective way and (2) it helps them realise their ethical and political goals. Given that both of these are crucial to how radical social movements are currently seeking to engage with party and parliamentary politics, how might the balance between autonomy and centralisation work in the context of organisations that have traditionally been highly centralised? Political philosopher Richard Gunn has recently characterised one distinction between radical social movements and political parties as that of interaction versus institutions (2014a):

> Institutions have a built-in, hierarchical dynamic: they obey an iron law of oligarchy that generates role definitions – role definitions which claim authority and cluster together at the top. By contrast, interaction which follows its own inner logic is unrestricted and in principle free.

Writing with R. C. Smith and Adrian Wilding (2015), he adds:

> An analogy may be drawn with conversation: a "good" discussion follows its subject-matter wherever it leads. It *gives its law to itself*. So it is, we suggest, with interaction. Interaction *which is truly interaction* has an unstructured character. That is to say, it is not confined to previously-established channels. It decides on its own patterns and consults itself.

While Gunn and his co-authors are not writing in the contact of cybernetics, it is interesting that they use similar concepts such as that of role functions. I would suggest

that what Gunn describes as interaction, as free conversation, can be understood as self-organisation. Along these lines, the distinction Gunn highlights may come to stand for the distinction between radical left and anarchist organisation, on the one hand, and traditional party structures, on the other. If, as he argues (see also Gunn, 2014b; Smith, 2015), the question for radical movements is how to engage with party structures while maintaining the forms of self-organisation they are based on, this may be somewhere anarchist cybernetics can contribute. In Jeremy Corbyn's first outing at Prime Minister's Questions as UK Labour leader, he crowd-sourced questions from members of the public. While one example, and hardly a radical one, this points towards the kind of mechanisms an anarchist cybernetics might suggest. Just as anarchist and radical left organisation needs to find a balance, according to the analysis I have present throughout this thesis, between autonomy and centralisation, so too do movements like those across Europe that find partial expression in political parties. Anarchist cybernetics may, therefore, be able to play a role in developing an account of the kind of party structures, and importantly the kind of communications infrastructures, that would allow political parties to be sites of participation and democracy rather than sites of top-down command and control. But crucially, for this to happen, radical movements cannot be subsumed within party structures. They must continue as autonomous and self-organising collectives and engage with institutions without sacrificing their interactional elements.

Appendix 1 : Research Participants

Name	Organisation	Sex	Interview type	Interview recording length
Anton	SAP	M	Face-to-face	00:47:02
Edda	AGN	F	Face-to-face	00:40:53*
Evert	IS	M	Face-to-face	00:47:03
Eduart	Doorbraak	M	Email	N/A
Eva	Doorbraak	F	Email	N/A
Jay	AGN	M	Face-to-face	01:38:33**
Joost	Occupy Nijmegen	M	Face-to-face	01:34:33
Marien	Solidarity Cafe	F	Face-to-face	00:43:40
Mark	SAP	M	Face-to-face	02:12:45
Mahmoud	Migrant campaign	M	Face-to-face	00:40:49
Martyn	Our Media	M	Face-to-face	01:01:20
Paul	GroenFront!	M	Face-to-face	01:10:32
Tommy	AGN	M	Face-to-face	01:38:33**
Timon	Virje Bond	M	Face-to-face	01:19:49
Thijs	AFA	M	Face-to-face	01:07:56
Samuel	Indignados	M	Face-to-face	00:51:03
Simone	Amsterdam	F	Face-to-face	00:16:21 (incomplete recording)***
Xandra	AGN	F	Face-to-face	00:40:53*

Table 5: Research participants.

* Edda and Xandra interviewed together.

** Jay and Tommy interviewed together.

*** Recording device stopped after sixteen minutes, twenty-one second. I was taking notes and based on these notes wrote a summary of my reflections on the interview and sent this to Simone allowing her to confirm the content of the interview.

Appendix 2 : Initial Interview Discussion Points

Outline and introduction

1. Can you describe your role and experience as an activist?
2. How long would you say you've been an activist for?
3. What would a typical day/week/month in your activist life look like?
4. Which group(s) do you or have you belonged to?
5. What sort of group is that ideologically and in terms of practice?
6. Can you describe the history of the organisation?
7. Can you describe some of the typical activities of the group?
8. Can you describe the organisational structure of the group?
9. What would a typical day/week/month in the organisation look like?

Social media use in the group

10. How much to you use social media in your personal life?
11. Have you had a positive experience of using social media?
12. What negative experiences have you had?
13. Does the group you're a member of use social media?
14. If so, which examples?
15. Of them, which are you directly or indirectly involved in using?
16. Do you think the group makes good use of social media?
17. Have there been any big successes of using social media?
18. Have there been any failures in using social media?
19. Does the group have plans to use more social media or less?

Attitudes towards social media

20. Do you think that social media are, in general, a positive thing for organising?

21. Do you think they present something new or a version of traditional methods?

22. What are the benefits of using social media?

23. What are the drawbacks?

24. Have you thought about the Occupy and the Arab Spring in terms of your own organising?

25. What is your impression of the left's attitude in general towards social media?

26. Do you agree with these attitudes?

27. Do you see a role for social media alongside other methods of organising?

Appendix 3 : Nodes Used in Coding

The coding procedure put to use in this thesis is a far more ad hoc one than is common to social sciences research (e.g. Bryman, 2012, pp. 298-304). While typical coding procedures involve concerns around validity and reliability, the approach taken here was focussed more on a subjective interpretation of the interview transcripts in terms of how what the participants were saying resonated with the philosophical concerns of the overall project. No real coding schedule was developed prior to analysing the transcripts and the list of participants and interview details were not included in the analysis, other than the participants' organisational affiliation. Neither was a coding manual constructed to guide the coding of certain sections of the transcripts. Instead, the coding was informed by a rough schema, never formalised or otherwise written down, based on my own thoughts and reactions during the interviews and the transcription process as well as on the key themes and concepts highlighted by the literature research. As a result, features such as indiscrete mentions, overlapping categories, inexhaustive categories, a lack of instructions, a large amount of discretion and a lack of inter-coder reliability were present in the coding procedure. This would, of course, be problematic for social sciences research. As I have made clear throughout, however, the project covered by this thesis was of a philosophical nature and the aim was not to capture a sense of the reality of certain cases but to draw on activists' reflections on organisational practice and social media to inform the philosophical debate. In this sense, the failure to follow a coding procedure aimed at validity and reliability is less of a concern. That two researchers might approach the same data and produce differing philosophical analyses is not a major problem in light of the overall aims of a project like this.

Like the rest of the research methods outlined in this thesis, the approach described here should be seen as complementary to social science research. Rather than opposing the processes and assumptions of such research, the participatory political philosophy

discussed in Chapter 4 and the coding method highlighted here can be taken as pointing towards a philosophy-based engagement with established social scientific conventions. While participatory political philosophy is not reducible to social science, it may well work hand in hand with typical social science methods in helping bring empirical insights to bear on philosophical analysis.

Node name	external
01 - Internal Organisation and structural points	Listserv
Activities	Email
Authority	Meeting
Autonomy	Personal Contact
Civil Disobedience	Social Media
Coproduction	Telephone
Decision-making	03 - External Communication
Consensus	Conversations
Efficiency	Facebook
Federation	Listserv
Grand strategy	Mobilisation
Horizontal	One to Many
Assemblies	Other System
Inclusion and Identity	Personal Contact
Network	Physical
Viral or meme	Twitter
Prefiguration	Website and blogs
Representation	YouTube
Anti-representational Politics	04 - Group Uses of SM
Responsibility	Crabgrass
Subgroups	Facebook
Vertical	N-1 Lorea
02 - Internal Communication	Twitter
Definition of SM	Wiki
General distinction - internal and	YouTube
	05 - Left Uses of SM

Facebook	Repurposing
Forum	Simplification and Complexity
General	Small Movement
General Tech	Tactics
Listservs	Tech Neutral
Mumble	Texting
Myspace	Twitter
N-1 Lorea	Viral
Opposition to SM	Wiki
Twitter	YouTube
06 - Personal Uses of SM	08 - Specific Examples
07 - Potential of SM	Crabgrass
Active participation	Crowd-sourced hunting map
Alternatives	Indonesia
Apps	Live streaming
Assemblies	Mumble
Audience reach	No Dash for Cash
Crowd-funding	OurMediaIndyMedia
Dialectical development	Pads
Drones	Riots
Efficiency	Student Protest Den Haag
Facebook	Telephone list
Horizontal	WSF
Hubs	ZPIS
Necessity	09 - Engagement Issues
Need for personal	10 - Flexible Ties
Peer to Peer	11 - Attitudes towards research
Power	12 - Narrative
Previous situation	
Reliance	

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