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ORGANISATION OF THE ORGANISATIONLESS: COLLECTIVE ACTION AFTER NETWORKS

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The 'choice' for networked, internet-reliant organising can only be partially understood as a 'free choice' in the fuller sense. It is true that a rejection of formal organisational ties - seen as almost inevitably leading to the formation of hierarchies, bureaucratisation, a lack of transparency and the democratic deficit denounced in contemporary representative systems – is an important part of the 'spontaneous philosophy' of movements of this century. But what enables and strengthens the resolve to avoid these formal structures is the fact that, because of the internet, co-ordinated collective action is considered possible without them. More than this, it is something people already do on a daily basis, it is what they already do with friends and families independently from politics. A network logic structures the everyday lives of most people, from the way they work to how they interact in their leisure time, so that networked organisation is literally what 'comes naturally' to them - which makes it easy to understand why formal organisation can be seen as an avoidable, unnecessary risk.¹

To speak of the *organisation of the organisationless* is to attempt to describe what exactly it is that 'comes naturally' to people when they organise in this way, but to do so as independently as possible from the 'spontaneous philosophy' with which they explain what they do. It is not that the latter is unimportant or false but that, as a political ideology through which actors justify and legitimate what they do, it slips

¹ Clay Shirky analyses this in economic terms as a collapse of the costs of group formation that entails a loss in the relative advantages of institutionalisation – since activities that would previously require institutions can now be pursued with much lither co-ordinating structures. Clay Shirky, Here Comes Everybody: The Power of Organizing Without Organizations, London, Allen Lane, 2008.

furtively across the border between descriptive and prescriptive registers. It is important to keep descriptive and prescriptive theories apart, not because the first are 'real' while the second are made-up (both are theories, and therefore constructions constantly tested against reality), but because we need to keep our ideas of 'how things are' as distinct as possible from our ideas of 'how things should be' if we are to get a clearer sense of how, if at all, we can turn the former into the latter. The effect that such a project should produce is neither bafflement nor surprise, but recognition: if anything discussed here is at all hidden, it is hidden in plain sight and quite often it is the interference of prescription on description that will have kept it from view. First and foremost, among the things that will have been so obscured is precisely the fact that what is characteristic about today's movements is not the absence of organisation, but a mode of organisation that can be described in its own right.

A description of the 'spontaneous' forms of organisation that those who avoid formal organisations fall into – one that is as free as possible from normative interference, value judgements, wishful thinking and moralising overtones – is a necessary step in opening the space in which to pose these questions. It may be that, for the sake of clearing the way, the time has come to be openly polemical and say once and for all that networks are not and cannot be flat; that prefiguration cannot be a goal in itself; and that an idea like horizontality may have moved from a fresh, critical antidote to outdated ways of organising to becoming an 'epistemological obstacle'.2

To say that leadership exists in networks while absolute horizontality does not, has nothing to do with the fantasy of 'hidden leaders' that functions, in the discourse of the media and the political class, as the underside of the fantasy of throngs of previously unrelated individuals magically coming together around a goal. But since the main 'sticking point' between partisans and critics of networked organisation are issues around leadership, representation, closure etc., if it is possible to show that such phenomena are equally impossible to avoid in networks as they are in formal organisations, some progress will have been made in establishing a set of questions and a mode of questioning pertinent to both camps. The discussion ceases to be about how to achieve absolute horizontality, which will have been demonstrated to be impossible, or how to eliminate leadership, representation and closure, and becomes about how to negotiate them, what balances to strike

See Jo Freeman's assertion that "[t]he idea of 'structurelessness' [...] has moved from a healthy counter to [the hierarchical structuring of society and 'the continual elitism of the Left'] to becoming a goddess in its own right." Jo Freeman, "The Tyranny of Structurelessness".

between openness and closure, dispersion and unity, strategic action and process and so forth.

It is necessary, finally, to escape the oscillation between the one and the many that much contemporary political thought appears to be stuck in.3 Grammatically, this consists in always opposing a singular to a plural term (like identity and singularities), although it can be found at work behind the ways in which other conceptual binaries are mobilised, from the more obvious (unity and multiplicity, totality and proliferation, people and multitude) to the less so (party and movement, verticality and horizontality, transcendence and immanence). To open the space in which questioning can take place is also to point to a space between unbound multiplicities and the binding of plurality into a one: the intermediary scale of clusters, hubs, collective identities, vanguardfunctions etc. - a whole bestiary that is overlooked if we jump only from one extreme to the other.

NETWORK SYSTEM

There are obvious difficulties in employing the concept of 'movement' to describe moments such as the one that began on 17 December 2010 in the small Tunisian town of Sidi Bouzid, when a young street vendor by the name of Mohammed Bouzizi set himself on fire in protest against the repeated humiliations he had suffered at the hands of local authorities, and has since spread to Egypt, much of the Maghreb and Mashreq, to Spain, Portugal and Greece, to the United Kingdom, Israel, Québec and Chile, the United States and Mexico. 4 The word inevitably suggests some degree of cohesion or community regarding goals, identity, practices and self-awareness - all of which would seem to be lacking, or present only in the vaguest sense, in the cases at hand. On the contrary, these cases seem to subsume several different movements - their goals, identities and practices - acting in greater or lesser synergy, with more or less coherence, in a single conjuncture. This is one problem, cognitive as well as political, that attempts to apply the concept of movement to these phenomena face: the risk of either doing

³ To be precise, the issue is not multiplicity as such, but the automatism whereby the opposite of unity can only be thought as unbound multiplicity that cannot be arranged or grouped in any ways. We can think this in terms of the party-movement opposition: not only is no party ever really the one (it is one among many), no movement is ever really just multiple (it is not only made of differences between individuals/singularities, but also of differences between individuals/singularities). Even Alain Badiou's thought, which originally set itself as a (dis)solution of the one/many problem, seems to return to it by positing an option between the Idea of communism and sheer dispersion: "Lacking the Idea, the Popular Masses' Confusion is Inescapable". Alain Badiou, The Communist Hypothesis, David Macey and Steve Corcoran (trans.), London, Verso, p. 258.

On why to speak of 'moment' rather than 'movement', see Rodrigo Nunes, "The Global Moment", Radical Philosophy, 159, 2010, pp. 2–7.

violence to their overall diversity, by making one part stand in for the whole, or being capable of grasping them only in terms too generic to be of much use.

That Hardt and Negri's concept of 'multitude' gained traction during the height of the alterglobalisation moment at the turn of the millennium was no doubt related to its perceived capacity to solve this problem. At once one and many, deployed in the singular but denoting a plurality, the multitude is "a multiplicity, a plane of singularities, an open set of relations, which is not homogeneous or identical with itself and bears an indistinct, inclusive relation to the outside of it." The concept's subsequent fall from grace, however, might just as well be explained by its inability to really escape the oscillation between the two. Anyone who, when asked about the agency behind any political event of the last decade, replied only "the multitude", would ultimately not be saying much; the concept clearly has far more evocative than explanatory power. Ultimately, Hardt and Negri's abhorrence of 'mediation' (reductively identified with sovereignty, unity, totalisation, identity and transcendence) seems to deprive them of the means to speak of the intermediary level at which "the multitude is formed through articulations on the plane of immanence without hegemony" that is, precisely, through mediations. One notices a symptomatic change in how the words 'immediate' and 'immediately' occur from Empire and Multitude to Commonwealth, a book in which the question of the multitude's 'becoming-prince' - its aptitude for political subjectivation and strategic action - looms large. Whereas in the first two books they usually appear in a positive association with the multitude's constitution, in the latter there is a more negative connotation.8 This indirectly signals a second problem of employing a singular 'movement' as a descriptor here: by blurring the description of the internal differentiation of what it describes, it blurs the interactions

Michael Hardt and Antonio Negri, Empire, Cambridge, Harvard University Press, 2000, p. 103.

Michael Hardt and Antonio Negri, Commonwealth, Cambridge, Harvard University Press, 2009, p. 169. This issue can be thought in relation to another criticism often levelled at Hardt and Negri's work: even if "not homogenous or identical with itself", treating the multitude as singular risks obscuring the very real and politically significant phenomena of class stratification inside it.

⁷ For example: "When human power appears immediately as an autonomous cooperating collective force, capitalist prehistory comes to an end." Hardt and Negri, Empire, p. 366.

For example, the "affirmation of immanence is not based on any faith in the immediate or spontaneous capacity of society"; "the organization of singularities required for political action and decision making is not immediate or spontaneous"; "economic capacities are not immediately expressed as political capacities." Hardt and Negri, Commonwealth, p. 15, p. 175, p. 365. This, it should be noted, does not come with a reevaluation of mediation; despite the new emphasis on the instituent dimension of constituent power, 'mediation' is still understood as external to the multitude - the sheer fact of which is indicative of how, in this context, 'multitude' operates as singular, not multiple, i.e., internally differentiated/mediated.

among its components, which is where coordination and decisionmaking take place.

A third problem is highlighted by activist collective the Free Association:

"By thinking about movement(s) [as thing-like entities], we end up privileging those groups which have been identified in advance as 'political formulations' and fail to see the ways in which the majority of the world's population - 'activists' and 'non-activists' – exists both within and against capital."

Sensitivity to these questions could be indicative of both the legacy of 1968, with its preoccupations with diversity and expansion of the concept of the political, and of a novelty that appears with the alterglobalisation moment: the effort to bring network thinking to bear movement (self-)reflection, social already announced Subcomandante Marcos' address to the First Intercontinental Meeting for Humanity Against Capitalism that took place in Chiapas in 1996. If, as Marcos claimed, "[w]e are the network, all of us who resist", and if most people resist on a daily basis and everyone is connected to everyone else in some way, where do we draw the line?¹⁰

If the criteria we choose determines the boundaries we consider a social network as having, thus presiding over inclusion and exclusion, the political stakes of our choices become evident. This challenge has been brought into sharp focus by the upheavals of recent years, in which the sudden explosions of mass mobilisation involved far more people than those who would define themselves as 'activists', and by our highly mediatised contemporary environment, in which information and affect can spread and produce effects well beyond the physical barriers of proximity, personal acquaintance etc.

Clearly, a new grammar is needed. Perhaps one can be produced by differentiating between network-system, network-movement and movement(s).¹¹ A network-system is a system of different networks – of individuals, of groupings (temporary or permanent, formal or informal), of social

⁹ The Free Association, "What is the Movement?", in: Moments of Excess: Movements, Protest and Everyday Life, Oakland, PM Press, pp. 22–30, p. 28.

¹⁰ Subcomandante Marcos, "Tomorrow Begins Today: Invitation to an Insurrection", in Notes from Nowhere (ed.), We Are Everywhere: The Irresistible Rise of Global Anticapitalism, London, Verso, 2003, p. 37.

¹¹ The concept of 'network-system' has, like a piece of software code, been under cooperative development since it was first introduced by Raul Sanchéz Cedillo. See Raul Sanchéz Cedillo, "El 15-M como Insurrección del Cuerpo-Máquina", Universidad Nómada 2012; Rodrigo Nunes, "The Lessons of 2011: Three Theses on Organisation", Mute, 2012, June 7, 2012; Javier Toret, "Tecnopolitica: la Potencia de las Multitudes Conectadas. El 15M, un Nuevo Paradigma de la Política Distribuída", IN3 Working Paper Series, 20, 2013. I cannot recommend enough the conceptual and empirical work done by Javier Toret and the 15M Data Analysis group on Spain's 15M, which has been a constant source of inspiration.

media accounts (individual and collective), of physical spaces, of webpages (corporate outlets, blogs) - which constitute so many interacting layers that can neither be reduced to nor superposed on each other. Each of these layers contains its own sets of ties of different natures and strengths, nodes, clusters and so on, even if their topography is generally isomorphic; each is dynamic, so that the validity of any descriptions is time-bound. Individual persons, while themselves constituting a network that can be isolated as a layer, are also the elements that circulate among layers. It is because individuals form groups, interact on social media, frequent physical spaces and webpages etc. that the different layers connect. It suffices that an individual exists in any one of these layers to belong to the network-system; this makes the objection that not everyone has access to the internet or social media moot for the purposes of this definition. There is no dichotomy between digital media and the 'real world'; they constitute different, but interacting layers. 12 Finally, just as parts of networks are also networks, network-systems are embedded in and overlap with one another: the Diren Gezi network-system is embedded in a Turkish network-system, which overlaps with other countries' wherever there are ties to Turkish nationals, expats in Turkey, and so on. The global Anonymous network-system can be somewhat artificially broken down by country or region, and a United States Anonymous network-system embedded in it will heavily overlap with the Occupy Wall Street network-system, and so forth.¹³ 'Network-system' thus allows us to look beyond explicitly or self-identified political expressions, as well as any suggestions of shared goals, practices etc., and to picture a broader 'moving' of social relations. It is, so to speak, a movement as it exists in-itself, its capacity to produce effects existing independently from its being consciously registered by all who belong to it.

AFFECTIVE SYNCHRONIZATION AND PERFORMATIVITY

One of the distinctive traits of the present moment is the way in which our heavily mediatised environment drastically enhances the reach, velocity and insistence (capacity to continue producing effects) of information and affect. This is more than a quantitative difference; it is a change in degree that produces a change in nature. It makes a huge

12 Even if an individual has no direct access to the internet and knows no-one who does, they are very likely to interact with it - by reading news items influenced by Twitter discussions, seeing posters produced out of Facebook memes, hearing of digitallymediated protests [...] "[N]ot everyone in the world is on the internet, but everyone on the internet is in fact in the world", and so the internet can often be the shortest path to people who are not on it. See @Ciudadano_Zer0, "El Camino al Mundo Real", Vaeo, August 15, 2013. Of course, the amount of layers one is active in is a factor in determining one's capacity to influence the conduct of others.

¹³ National references are used for the sake of simplicity, as the systems themselves are evidently not constrained by national boundaries.

affective difference that developments can be followed in real time, both because little of the affective charge is lost, and because response time is reduced: a sense of urgency can even be created across large distances and acting on it is an immediate possibility. As informative and affective resonance increases across layers, the sense of urgency grows in intensity, and an affective synchronisation occurs that envelops ever more people.¹⁴ The combination of affective synchronisation, strength in numbers, and seeing those with whom they have strong ties join the protests lowers the thresholds of participation for ever more individuals, generating a cascade effect that is perfectly performative: because something is happening, I join in and get others to join, ensuring that there will be more of whatever is happening. As the event is replicated in a myriad other, smaller scale events (small local actions, or even just people telling friends about their experience at a protest, or hearing about it in the news), the network-system is created.¹⁵

The amplitude of an event of this kind will be proportional to how successfully it taps into a social malaise that has brewed for some time without finding any outlets, such as the social impacts of economic stagnation, as in Europe and the US, or the social costs of economic growth, as in Turkey and Brazil. The more public the expression of this malaise becomes, the more people are likely to see the need and the possibility of moving from indignation to action. The more people manifest a disposition to act, the more widespread it becomes. This is the performative dimension of digital media, functioning like a battery that accumulates energy to be discharged in the streets, used to great effect in cases like Egypt's 'We Are All Khaled Said' Facebook page. While 'clicktivism' has been (rightly) criticised from different quarters, when this kind of process approaches a critical threshold, there is a growth in the number of ties and a progressive strengthening of ties that amounts to an overcoming of 'clicktivism'. This could be described in Facebook terms as a passage from 'like' to 'share' and 'friend', then

14 15M Data Analysis have devised ways to empirically verify affective and conceptual synchronisation through the analysis of Twitter graphs. Javier Toret, "Tecnopolítica",

¹⁵ According to MacAdam and Paulsen's explanatory model of participation in high risk activism, developed from an empirical study of the 1964 Mississippi Freedom Summer Project, engagement depends on "the occurrence of a specific recruiting attempt", a tentative linkage between movement participation and one of the identities sustained by the networks of which an individual is part, "support for that linkage from persons who normally serve to sustain the identity in question", and "the absence of strong opposition from others on whom other salient identities depend." We should complicate this model according to at least three factors: the facility with which ties can be created and intensified on digital networks; how the insistence of information and affect across layers can take the place of recruiting attempts; and how the proliferation and intensification of ties, combined with transindividual affective synchronisation, can override existing identities and produce new ones. Douglas MacAdam and Ronelle Paulsen, "Specifying the Relationship Between Social Ties and Activism", American Journal of Sociology, 99, 1993, pp. 640–667, p. 659.

'comment' to 'confirm participation', and finally actual participation in actions, online and offline, at which point new, non-digitally-mediated, strong and weak ties will be created. At the same time, the expanding digital layers of the network-system function as a space in which ideas can be circulated and 'tested' (through metrics such as 'likes' and retweets) as potential candidates to the role of 'structural germs' which provide focal points and basic protocols for collective action.¹⁶

This much social media can do. However, it takes a dose of magical thinking to believe that an initiative can function as such a 'germ' without it being prepared in sufficient detail and given at least a minimal structure in order to make it viable. A process that could superficially seem like a miraculous convergence of previously unrelated individuals requires, in fact, various more tightly knit networks that play a structuring role online (by managing popular pages and accounts, for example) and offline (by setting locations, dates, times, themes, visuals, protocols - 'peaceful', 'militant', 'no flags', colour-coded - working out basic infrastructure and so forth). 17 There is not a single, sweeping wave of quantitative increase and intensification of ties, but a more complex movement in which stronger tie clusters and the organisational consistency they afford are essential to structuring both the technologically mediated contagion and what goes on 'on the ground'. 18

NETWORK-MOVEMENT

Any description such as 'Egyptian Revolution network-system' or 'Diren Gezi network-system' is a reflection on the given networksystem. That is, while they are obviously produced from within that network-system, and thus presuppose its existence, such descriptions exist at a second-order, reflexive level in which the network-system consciously apprehends itself. If the network-system is the 'movement' in-itself, this level is the 'movement' for-itself. We can call it the networkmovement: the conscious, self-reflexive understanding held by some that the multiple elements and layers assembled in the network-system constitute an interacting system of actors, intentions, goals, actions, affects etc., however heterogeneous these may be. The network-

¹⁶ Simondon draws an explicit comparison between a metastable state like superfusion or supersaturation, in which "an event is ready to take place, or a structure ready to emerge", and a 'pre-revolutionary' one: "all it takes is for a structural germ [germe structural] to appear." Gilbert Simondon, L'individuation à la lumière des notions de forme et information, Grenoble, Jerôme Millon, 2005, p. 549.

^{17 &#}x27;Network' here stands as a general name to describe more or less formal collectives, affinity groups, assemblies like the ones that preceded Occupy Wall Street etc.

¹⁸ Gerbaudo speaks of 'liquid organising' and 'choreographic leadership' to refer to this partially closed, partially open aspect; Feigenbaum, Frenzel and McCurdy talk about 'partial organisation'. See Paolo Gerbaudo, Tweets and the Streets, Social Media and Contemporary Activism, London, Pluto Press, 2012; Anna Feigenbaum, Fabian Frenzel and Patrick McCurdy, Protest Camps, London, Zed, 2013.

movement is at once the act of self-recognition that takes place when people start talking about 'the movement' to refer to these heterogeneous elements, and the ensemble that they have in mind when they do so. Everyone who belongs to the network-movement belongs to the network-system, since belonging to the former means being aware of oneself as belonging to the latter; but not everyone who belongs to the network-system participates in the network-movement. It is this element of 'expanded' self-awareness - awareness of oneself and of the larger system of which one is part of - that provides the criterion to distinguish between the two.

We can now see more clearly the advantage of replacing 'movement' with 'network-system' as a point of departure. To begin by trying to identify 'the movement' makes it difficult for us to go beyond the network-movement; counting beyond those who count themselves in seems dubious. This creates a bias in favour of the more consciously political expressions, and efforts to expand it further tie us in the sorts of knots we saw above. 19 As a result, we are left without a language to speak of various other phenomena, and with an inadequate tool to evaluate the conjuncture as a whole.

Starting from the network-system, we can then differentiate a network-movement within it – ultimately, a subnetwork of individuals who are clearly self-aware of belonging to a 'movement' that is a network whose parts are themselves networks. We can then discern different movements that exist within that network-movement: subnetworks that can be singled out according to a social base ('the labour movement'), a political orientation ('the anarchist movement'), an identity ('the indigenous movement'), or an issue ('the movement against welfare cuts'). They evidently overlap, and the same individual may belong to several subnetworks in different capacities, through ties of different natures and strength. Finally, within these movements we can isolate several subnetworks which may be groups of friends, more or less permanent collectives, more or less formalised associations,

¹⁹ A similar problem occurs when trying to speak of composites like Anonymous or the Black Bloc. On one level, they are just open identities that can be freely reclaimed by anyone, regardless of prior involvement or direct contact. At the same time, these identities are not entirely open, not just in that they presuppose some adherence to a set of values, but also in that disputes can arise among interpretations of those values, resulting in exclusions or marginalisation (as in Brazil between 'left' and 'right' Anonymous collectives). On another level, 'Black Bloc' or 'Anonymous' applies to more or less loose networks that participate in operations or actions; on yet another, to more tightly-knit collectives that tend to initiate and frame those. Finally, in Anonymous' case, not only do those individuals who command large botnets possess a disproportionately large share of the collective capacity to act, there are thousands of computers that participate in Anonymous operations without their owners even being aware. Here again the concept of network-system can be useful where others that it encompasses ('movement', 'group', 'collective', 'tactic') break down. Parmy Olson, We Are Anonymous: Inside the Hacker World of LulzSec, Anonymous, and the Global Cyber Insurgency, New York, Back Bay, 2013.

adepts of this or that kind of tactic, trade unions, parties etc.²⁰ The mode of analysis proposed here thus allows us to see organisation as a continuum, stretching from lesser to greater degrees of stabilisation, formalisation and consistency. Stabilisation denotes here the development, by habit, of tacitly endorsed rules, authorities, structures, from a couple of influential Facebook pages or Twitter accounts to a defined membership, process etc. Formalisation is understood as the development of explicitly stated and agreed rules and structures regarding leadership, decision-making etc. Finally, consistency refers to the capacity to produce and enforce decisions, to grow in an ordered way, durability, discipline etc. This means both that there is no such thing as 'no organisation' and that parties, unions etc., are describable as networks independently of their own forms of stabilisation, formalisation and consistency, even though these will determine their form and functioning as networks, and the more so the stronger they are.

The network-movement is a prerequisite for strategic and tactical thinking. Whereas 'the movement' implies some presupposition of a unity, 'network-movement' starts from a dynamic multiplicity – a dynamic system whose parts are also dynamic systems - and points towards the continuous project of the construction of commons, temporary or permanent, whose form is not presupposed in advance. The choice for either dispersion or unification is not inscribed in advance in the notion of a network-movement. On the contrary, the idea of network-movement opens the possibility that several ways of combining the two – swarming, distributed action, diversity of tactics, institutionalisation, forking, even (why not?) parties - can be selected according to what the occasion requires. Once these are considered in the context of a network-system, the point is not what solution is valid for the whole, but what solutions work within the whole. There is no need to find a single answer to what everyone must do - it is no wonder these should appear unlikely, given the number of variables being dealt with -, but instead the need to find the mediations which, through their interaction, enhance the whole system's capacity to act. The point is to create something more than mere alliance-building (where the parts, understood as 'constituted groups' of people, are supposed to stay the same, only co-operating punctually) and less than a one-size-fits-all solution (e.g., the idea of the party). This is about strategic interventions that can attract both constituted groups and the 'long tail' that does not

²⁰ These are only the most obvious ways in which subnetworks can be isolated. But, again, there is no limit in principle to how many networks we can individuate within the same network-system (for instance, people from different groups working on the same campaign, or people in parties, unions and collectives who know each other socially etc.).

belong to any group, pitched as complementary rather than exclusive, whose effects can reinforce each other.

DISTRIBUTED NETWORKS

As can be gleaned from examining graphs of interactions in the more easily measured digital layers, and as most participants will know from experience, the network-systems that emerged from the struggles of the last years display some ubiquitous characteristics of networks: 'short chains [or paths], high clustering, and scale-free link distributions'. 21 The latter specifically means that node degree (the number of ties each node has) is subject to a power law, a statistical distribution generating a curve in which a relatively small number of highly connected nodes (hubs) is followed by a sharp drop to a long tail of nodes with slowly decreasing node degrees. Among the first to observe the same phenomenon across various different kinds of networks, were Albert-Lázló Barabási and Réka Albert, who in 1999 proposed a model of network formation that directly connects growth and scaling: as (most) networks expand, they produce this kind of statistical disparity.²²

So this would be the bad news: our networks are not only unequal, but they are so by mathematical necessity, and this is directly connected to how they develop. The consequence is inescapable: if by 'horizontality' we mean a situation where each node would have exactly the same degree or weight in a network as every other node at any given time, networks cannot give us that. That they cannot is not contingent or accidental, nor a temporary condition to be overcome, but an intrinsic property of what they are and how they grow. This does not come without good news, however. Firstly, the presence of power laws is widely recognised by scientists as a likely sign of a self-organising system. (Though, it must be stressed, networks do not appear to selforganise their way out of power laws.) Secondly, this kind of network called scale-free because it has no 'average' nodes to speak of occupies 'a sweet spot between the unbuildable and the unusable', because of highly connected hubs that clusters can communicate with each other through counterintuitively short paths between distant nodes, the so-called 'small-world' effect.²³ This also makes scale-free networks 'highly resistant to random damage, since the average person doesn't perform a critical function' and so only a selective attack to several hubs at once could take them down.

²¹ Steven Strogatz, Sync: The Emerging Science of Spontaneous Order, London, Penguin, 2003,

²² Albert-Lázló Barabási and Réka Albert, "Emergence of Scaling in Random Networks", Science, 286, 1999, pp. 509-512. This became known as the Albert-Barabási

²³ Shirky, Here Comes Everybody, p. 216.

This places the network-systems of current struggles somewhere between the last two models put forward by Paul Baran, the 'decentralised' (each cluster presided over by a hub) and the 'distributed' (mesh-like).²⁴ Yet while topological models are important, as they indicate generalisable properties, a graph is only a static image; we need to take the dynamic aspect into account. Apart from the continuous appearance and disappearance of nodes, these networksystems also display the continuous formation, transformation and dissolution of clusters, the continuous quantitative and qualitative transformation of ties, and consequently the continuous appearance, growth, shrinking and disappearance of hubs, from the quantitative point of view (number of ties) as well as the qualitative (their nature and strength). Besides, the proliferation of ties constantly produces redundancy, creating alternative paths between nodes that counteract the tendency for hubs to become critical to the network's functioning.²⁵ This continuous internal differentiation entitles us to describe them as distributed, even if – especially in their sparser peripheries and among small-degree nodes - we have something closer to a decentralised architecture.

To sum up: these are not horizontal movements, but distributed networksystems subject to continuous internal differentiation, whose participants may or may not espouse the ideal of horizontality. Regardless of what individuals' ideas about decision-making, leadership and representation might be, and the practices that they derive from these, their general and most constant framework of interaction is best described, from the point of view of the system, as distributed leadership. It is not that there are no 'leaders'; there are several, of different kinds, at different scales and on different layers, at any given time. In principle, anyone can occupy this position.²⁶ That is, they are not leaderless but, if the poor wordplay can be forgiven, leaderful.

While this has always been true, to a certain extent, of any movement at any point in time, what is unique about the present is the way in which the 'mass self-communication' afforded by digital media has radically enhanced it.²⁷ The potential for real-time diffusion and amplification that exists today has enabled a diffuse vanguardism in

²⁴ The first one was, of course, 'centralised' (hub-and-spokes). Paul Baran, "On Distributed Communication Networks", 1962.

²⁵ As Baran observed (and visualisations show), in order to produce a decentralised network out of a centralised one, and a distributed network out of decentralised one, one has to add ties between nodes that are not hubs; that is, to increase redundancy.

²⁶ It must be stressed that, throughout, 'leader' does not necessarily refer to individuals; on the contrary, for reasons explained above, in the physical layer at least these will often have to be groups (although, of course, one can find cores of more influential individuals inside them).

²⁷ Manuel Castells, "A Network Theory of Power", International Journal of Communication, 5, 2011, pp. 773-787.

which initiatives can snowball exponentially and produce impacts far exceeding their original conditions.

A successful initiative is not one that manages to gain the support of the entire network-system, but one that attains sufficient support to achieve the intended effects; success is relative to scale. If we consider the creation of the overall network-system ('Egyptian Revolution', '15M', 'Occupy Wall Street') as a root event, these initiatives are events internal to these network-systems, which in turn generate their own network-systems, embedded in the root one. For example, the networksystem created in the run up to the Spanish protests of 15 May 2011 was made denser, expanded and given new content by the camps (acampadas) that sprung up all over Spain following Madrid's Puerta del Sol. Puerta del Sol thus became a local network-system, and sparked a country-wide acampadas network-system, all of which are subnetworksystems that expanded, made denser and added new content to the 15M network-system. Each acampada is in turn an event in its own right, creating its own local network-system, and so forth. This idea of successive nesting explains why, after many obituaries of Occupy Wall Street had been written, Occupy Sandy managed to organise a highly sophisticated disaster response operation in very little time. While Occupy Wall Street had disappeared as a 'movement', the networksystem it had created remained strong and active enough for an initiative to be able to activate it and develop a new subnetwork-system from it very quickly.

DISTRIBUTED LEADERSHIP

While Albert and Barabási's generative model, originally developed from a study of the World Wide Web, was successful in explaining the occurrence of power law distributions by directly associating them to network growth by means of the notion of preferential attachment, it soon showed a serious flaw. Preferential attachment - the law according to which a more connected node will tend to attract disproportionately more links from new nodes added to the network, thus increasing their degree while degrees along the long tail remain low - can account for hubs. It cannot, however, account for those cases in which a 'poor node' moves from the periphery to the centre, or a relative latecomer rapidly increases in degree;²⁸ it cannot, that is, elucidate something like the rise of Google. This demanded the development of a new model capable of accommodating individual qualitative differences, which was

²⁸ I take the term 'poor node' from Pimentel and Silveira's analysis of Facebook graphs in the early days of the Brazilian protests. Their observation is that "momentary relevance does not necessarily lead to a rise in social network capital." Tiago Pimentel and Sérgio Amadeu da Silveira, "Cartografia de Espaços Híbridos: As Manifestações de Junho de 2013", Interagentes, July 11, 2013.

done by assigning each node greater or lesser 'fitness' in its environment.²⁹ However, since what will often define a node's advantage over others is that it introduces a true, unpredictable novelty, and not a response to a previously noticeable lack, 'fitness' is worth far more as an ex post explanation than a predictive tool. We can apply it to phenomena in the network-systems we are dealing with, however, provided we bear in mind that it pertains to a node's initiative more than to the node itself, whose centrality may or may not increase as a result of the initiative's success.

The possibility that a node which is not a hub may act as a vector of collective action in ways that largely exceed its previously measurable potential to influence others is the flipside of how hubs can decrease as well as increase in status. In order to differentiate these events from the 'ordinary' activity of highly connected hubs (distributing traffic, directing attention etc.), we can say that a node or cluster temporarily occupies a vanguard-function in relation to the network-system in such vanguard-function differs from The the teleological understanding of vanguard whose sway over the Marxist tradition helped engender vanguardism. It is objective to the extent that, once the change it introduces has propagated, it can be identified as the cause behind a growing number of effects. Yet it is not objective in the sense of a transitive determination, which would be made necessary by historical laws, between an objectively defined position (class, class fraction) and a subjective political breakthrough (consciousness, event). The vanguard-function is akin to what Deleuze and Guattari call the 'cutting edge of deterritorialisation'30 in an assemblage or situation, opening a new direction that, after it has communicated to others, can become something to follow, divert, resist etc.31

Distributed leadership is therefore to be understood as the combination of a topological property (the presence of hubs) and two dynamic ones (hubs can increase and decrease, and new hubs can appear or, alternatively, nodes can 'lead' without necessarily becoming a hub or authority in the process). If the first of these entails that networks are constitutively unable to become the perfectly flat, totally transparent, absolutely horizontal media they are sometimes posited as at least potentially being, the latter two indicate the measure of

²⁹ For the fitness model, see Ginestra Bianconi and Albert-László Barabási, "Competition and Multiscaling in Evolving Networks", Europhysics Letters, 54, 2001, pp. 436-442.

³⁰ Gilles Deleuze and Félix Guattari, Mille Plateaux, Paris, Minuit, 2004, p. 298.

³¹ The concept applies at different scales: Mohammed Bouzizi's suicide functioning as a vanguard-function to the friends and family who start the protests in Sidi Bouzid, which in turn lead others to protest and so on; Tunisia as a vanguard-function in relation to Egypt, the Arab Spring in relation to 15M [...] "As Gabriel Tarde said, one would need to know which peasants, in what regions of the south of France, stopped greeting the local landowners." Deleuze and Guattari, Mille Plateaux, p. 264.

democracy they can be said to have. Individual networks can of course be more or less democratic according to how distributed leadership potential is, and how open they are to new initiatives and hubs emerging. It is only if we understand 'democracy' as synonymous with 'absolute horizontality' that they could be called undemocratic. Horizontality, despite being an impossible goal to achieve, has its use as a regulative principle, indicating the need to cultivate the two dynamic properties of distributed leadership.

Because their capacity to influence fluctuates, hubs are subject to a process of continuous legitimation that depends on their own activity (whether they remain active and continuously distribute relevant traffic), on the development of the network itself (since the appearance of other hubs can decrease their centrality), and their perceived network ethic (whether they are seen as acting co-operatively and in the interest of the whole network-system, or only with a view to securing and enhancing their own power).³² In times as highly suspicious of representation as ours, the tendency is for hubs with a greater leadership potential to be more severely scrutinised, since people are both wary of what may happen if a node becomes too big, and instinctively aware that a hub's power can be controlled by suspending co-operation – in social media terms, 'unfriend', 'unfollow', 'unlike'. 33 This in no way makes distributed leadership an ideal market of information and initiative: fitness does not exclude preferential attachment, and preferential attachment inevitably slants the 'market' in favour of hubs; whoever is more connected is more likely to be heard. But it shows in what way distributed leadership can be said to offer a concrete instantiation of the Zapatista motto of mandar obedeciendo: 'to rule by obeying'.

32 This is undoubtedly the main suspicion harboured against parties or party-like organisations, although it is a problem neither exclusive to nor necessarily always given with them.

³³ This can serve as a factor in explaining why the formation of mass parties appears unlikely in most places today: people sense the advantage of temporary attachments over formalised ties when it comes to keeping accumulation of power in check. This does not, of course, say anything about whether temporary attachments are in and of themselves sufficient for all political purposes.