from the two anonymous readers who were sent the first draft prompted me to rewrite well over half the original typescript. The book started its life at Durham University, gathered pace during a glorious fellowship in 2011 at the Swedish Collegium of Advanced Study (SCAS) in Uppsala, and drew to completion at Cambridge University. My thanks to colleagues at the formidable Department of Geography at Durham and at the Institute of Advanced Study that I had the privilege to lead until August 2011, to Bjorn Wittrock and Barbro Klein at SCAS who created the opening for this book to come to realization, and to Sue Owens and other wonderful new colleagues for welcoming me warmly to the Department of Geography at Cambridge. This book is for an idea - that the stranger is neither friend nor foe, but constitutive. It is also for my family - Lynne, Usha, Sam and Isla. I dedicate it to Josep Ramoneda for the courage he showed in engaging with the stranger. He paid the price for it.

Introduction

Modern Western societies have become thoroughly hybrid in every sense. With their heterogeneous populations and cultures, they exist as gatherings of strangers – home grown and migrant. Yet the grip of the imaginary that each society exists as a homeland with its own people, known and loyal to itself (and distinct from strangers from another land) remains vice-like. But could it be that if cosmopolitan societies hold together, they do so around plural publics and as the result of active work by collective institutions, integrating technologies, and constructed narratives and feelings of togetherness, rather than around givens of historic community?

Indeed, modern Western societies consist of so many spatial provenances, from the local and national to the virtual, postcolonial and transnational, that there can be no certainty of the whereabouts of the givens of historic community, which still remains widely understood as a territorially defined entity. In turn, if the locations of community (and its outside) spill over beyond its traditional containers, so too does the constituency of social being. Modern humans are more than flesh, feeling and consciousness, formed as social animals and civic

subjects by a myriad of other material inputs, from technological objects to transplants and prosthetics. The habit of seeing humans as divorced from nature and technology continues to persist, allowing easy distinctions to be made between some subjects as pure and others a impure, some as citizens and others as strangers.

This book focuses on what goes on in the gap - in the West between - the narratives or practices of societal singularity and those of pluralism, affecting the chances of those labelled as strangers or minorities. My argument is that the fate of the stranger lies in the play between hybrid and singular performances and projections of the social. I do not see this necessarily as the conflict between everyday life, understood as the sphere of freedom and opportunity, and the machinery of societal governance, understood as the sphere of restraint and discipline. Each sphere consists of both kinds of social practice, for example, in the sphere of everyday life the persistence of legacies of racial judgement that return some strangers as outsiders and threats, or in the sphere of representation and rule descriptions of the stranger as co-habitant and potential citizen.

It is the gap itself between singularity and plurality that interests me, as the space in which some humans become labelled as insiders or outsiders, publics and nations define themselves as hybrid or otherwise, and the stranger is or is not afforded air to breathe. My interest in this space stems from a desire to widen contemporary discussion on the fate of the stranger in Western societies, in two senses especially. First, with its focus on the racialized Other, the book examines the multiple ways in which the stranger is construed as an outsider: the object of ejection, domestication or tolerance. It uncovers an intricate and often interwoven set of biopolitical, behavioural and affective forces that are simultaneously ingrained and unstable. Accordingly, second, the book expands the case for the society of strangers, looking for openings in the overlay between everyday hybridity and hegemonic disjuncture, gathered

into an explicit politics of multiplicity and common cause to justify the diverse society.

A prime reason for the desire to expand debate on the society of strangers is to push back at an increasingly narrow scholarly and policy framing of the challenges of social integration and cohesion under conditions of hyperdiversity. My argument is that, in seeing too much of the human in the social and in expecting too much from the inter-human in resolving social difference and antagonism, a narrow framing misrecognizes the society of strangers compositionally and in terms of its normative potential. If, in the latter half of the twentieth century, socialist, feminist, queer and postcolonial thought pressed for, and succeeded in legitimating, a vision of the diverse and open society as a community of equals allowed to express and exercise their difference but united in common cause, the twenty-first century has begun with narratives of common life based on reduced or reconciled differences and strengthened social and community ties.

A logic of the communal as the field of interpersonal and intercultural ties, underwritten by shared historic values, has come to the fore (Vertovec and Wessendorf, 2010), spurred by negative commentary on multiculturalism in the wake of 9/11, including accusations that strangers and minorities expect too much and give back too little, make majorities feel like strangers in their own land, and weaken social cohesion by undermining national heritage and tradition. Envisaging the good society as the society of responsible citizens and collaborating communities, this logic recommends the exclusion or domestication of the stranger, the revival of core national values, and the strengthening of ties among and between communities. This book judges such a turn to be regressive and unrealistic: regressive for its veiled xenophobia and exclusionary nostalgia, and unrealistic for its denial of the plural constituency of modern being and belonging.

This turn is judged to be no casual invention, but one drawing on a long line of sociological inquiry interested

in the nature and role of social ties in the modern society. For at least a century, the social sciences have judged modernity by its impact on social and community ties, generally understood to have been weakened by the proliferation of many material, technological and institutional intermediaries. While some observers have found in this displacement an opportunity for society to look beyond the limitations of tradition and bounded community, others have judged it to suppress collective progress and social cohesion. The balance of opinion has varied with circumstance and context, and our times, viewed as a time of extreme societal fluidity in an insecure and unstable world, seem to be favouring once again a yearning for the society of mutual obligations and strong social ties.

The virtues of community are being rediscovered in diverse fields of social organization. For example, work on the economy, backed by policy work on social capital and on communities of practice, increasingly argues that factors such as trust, loyalty and mutuality are important lubricants of market transactions and vital sources of learning, creativity and innovation. Similarly, work on cohesion in a fast-moving and cosmopolitan world has turned to the steadying hand of interpersonal and communal ties in dealing with the challenges of anomie, indifference and aversion. So too with discussion of citizenship in the open and mixed society, which is increasingly framed as a requirement of duty and conformity (especially from strangers and minorities), rather than as a right or entitlement. In the same way, in cultural studies, the public sphere is being redefined as the space of encounter and reconciliation, instead of being seen as a field shaped by the interaction between diverse publics and counter-publics. Across these strands, we see the social reduced to the communal, and potentiality to the powers of association and collective identification.

This book seeks to both extend and supersede such a resurgent sociology of ties. Echoing the latter's focus on the relational and co-constituted nature of social life, the book turns to the phenomenology of everyday experience, including the nature of social interaction, to explain cultural habits and norms, instead of presuming them to be already given to particular bodily forms, individual and collective. Here, the entanglements of situated practice are taken seriously by interrogating the multiple provenances of judgement that envelope the event - mediated and direct, immediate and remote, purposeful and unintentional, cognitive and non-cognitive, archived and actual. The meeting of strangers is considered to involve much more than the bodily moment, or, for that matter, the

phenomenology of social connectivity.

Interpreting the encounter, and more generally habits of living among others, as the space in which the pre-formed, performed and imagined intersect to mould social dispositions and feelings (Vertovec, 2011), some of the sites of celebratory writing on social ties are revisited. With its expanded reading of situated practice, this study explains trust in the workplace - and related outcomes such as learning and creativity - as an always fragile and cultivated art born out of joint work, shared goals and standards, craft practices, and technological alignment, rather than as the gift of particular forms of social disposition. If strangers become collaborators and co-creators it is through particular forms of labour that generate trust, and not the reverse. Similarly, the book argues that public feelings of empathy or aversion towards the stranger are not reducible to the intensities of social interaction or the qualities of collective culture. Instead, they are shown to be instantiations of a slew of personal and collective labelling conventions - inherited, learnt, absorbed and practised - that flow into the moment of encounter, but that are regulated by cognitive and sensory judgements stimulated by the specifics of the occasion.

Here, the practices of situated judgement are interpreted as temporally freighted, multispatial, and materially formed: the realization of many provinces of cultural formation. Accordingly, a central claim, following Latour's

(2005) interpretation of the social as the field of human and non-human association, is that the turn towards the interpersonal as the measure of community offers an overly restrictive account. In contrast, effort is made to recognize the bodies, objects, technologies, legacies, ideas and imaginaries - tensely held together in relational space - that shape the affective proximities of humans to their worlds and with each other. Human being and belonging are shown to be intensely mediated and hybrid, even when seemingly singular and unambiguous. Convinced that 'foregrounding material factors and reconfiguring our very understanding of matter are prerequisites for any plausible account of coexistence and its conditions in the twentyfirst century' (Coole and Frost, 2010: 2), the book brings into play bodily affects, inscribed legacies, biopolitical regimes and classificatory conventions to explain dispositions towards, and among, strangers. It introduces urban technologies, infrastructures and aesthetics to explain negotiations of difference in public space, ornaments, prosthetics and intimate publics to explain pathologies of care, projects, protocols and technologies of assembly to explain workplace intimacies, and models and projections of the future to explain the fervours of community.

The purpose of this reconsideration of the phenomenology of the encounter is to dislodge the politics of belonging from its current mooring in a discourse of strong social ties. A first aim is to recognize cares and responsibilities formed in material, technological, symbolic and imagined space (and with nature and animals, although this dimension is not covered in the book – see Mendieta, 2011, on how a genuine politics of co-habitation requires empathy with vulnerable co-species). Such intimacies are considered as allies rather than obstacles in a politics of human intimacy, depending on whether crafts and cares cultivated in singular space (often antipathetic to strangers) can be extended as a form of interest in the commons, including the claims upon it of the stranger. It is proposed that the

cultivation of labour, learning and living is a craft that requires continual attentiveness and care, such that empathy – for objects, projects, nature, the commons – can spread as a public sentiment that also serves to regulate feelings among strangers.

While the book finds no quarrel with a politics of care able to push back at the pathology of self that has become so prevalent in the contemporary West, it remains disturbed by the prospect that a politics of respectful distance, principled disagreement and common life becomes discarded as a way of negotiating the society of strangers. A second aim, therefore, is to defend a politics of difference formed around the impersonal, the openly disputed and the public. Two guiding principles are introduced to make such a politics inclusive. One is the principle of multiplicity, allowing all claims - settled and new, mainstream and alternative - to be rendered small, provisional and equivalent, pressed to make their case, accept the legitimacy of other claims, and build coalitions and synergies (Connolly, 2005). Public acceptance of this principle will help to render the strange familiar and the familiar strange, and collective life a constant negotiation of difference.

But such a public arena needs to be capable of harnessing collective commitments to ensure that pluralism does not degenerate into a free struggle that works in favour of the fittest. For this reason, the principle of the commons is recovered as a second staple of the society of strangers, intended as both an enabling public sphere and a provisioning collective resource. A case is made for a flourishing and dissenting public sphere, not only so that many publics can form and learn to accept the settlements of open play, but also so that shared affinities and interests can arise out of participation and engagement. A case is also made for returning to the social state - its public spaces, collective infrastructures, welfare protections, and social democratic traditions. However, no unqualified return is proposed. Recognizing the multiplicities of the open and negotiated society, the book accepts that the social state can fix only so much through its tangible provisions and cultural persuasions, but it also maintains that without it there can be no fair deal for the vulnerable and disadvantaged, including the stranger.

The openings and closures for the stranger in the gap between singularity and pluralism are examined thematically through six chapters. The first chapter summarizes the contemporary turn towards community cohesion through social ties, and goes on to explore the implications of attachment formed with, and around, objects, technologies and common spaces such as friendship groups and intimate publics formed around genre films or fiction. Taking such attachments seriously, the chapter proposes that a politics of care, aware of the limitations of interpersonal proximities, might usefully turn to strategies to reinforce social interest in the shared material, virtual and affective commons. It considers curatorial attention of the zones of engagement with other humans and non-humans to hold more promise for a politics of bridging difference than is an ethic of care for the stranger or for a particular notion of community.

Such curatorship is also proposed as the staple of economic innovation, the means by which strangers learn to become creative collaborators in the workplace. The second chapter examines the social dynamic of knowledge generation in different situations of collaborative work (e.g., craft workshops, scientific projects, virtual communities). It claims that learning and innovation, along with the integration of peripheral participants into a creative community of practice, is the result of purposeful attention to shared problems, sustained by expertise honed in application, alignment of diverse and distributed knowledge inputs, and maintenance of an architecture and ethos of joint effort. Trust, mutuality and obligation, claimed as the sources of creativity (and cohesion) in work on social ties, are explained as the product and not the cause of collaborative engagement. The chapter returns labour, joint work

and craft culture as key to social integration and economic creativity in the society of strangers.

The third chapter turns to everyday mingling in urban public space, to reappraise how co-presence shapes human dispositions and feelings. The history of sociology is peppered with claims about the decisive cultural and political significance of social interaction in urban public space. The negotiation of space shared with other strangers has been considered to have civilizing, imitative or alienating effects, depending on the sentiments aroused, ranging from enmity and indifference to guile and empathy. Such symptomatic readings have shaped many an urban intervention to alter the pattern of human contact in public space in order to change habits of living with difference. While reaffirming the proposition that in modernity human being and the negotiation of urban space are inextricably intertwined, the chapter turns to the urban habitat itself - the assembly of technologies, built forms, infrastructures, services, rules of order and symbolic landscapes that urban dwellers unthinkingly negotiate - to explain collective culture and social dispositions. Stranger relations are proposed to filter through this 'urban unconscious', rather than through habits of interpersonal contact in public space. Accordingly, the chapter outlines a politics of the stranger formed through the urban commons.

This is not to underestimate the freight of the bodily encounter, where the play of open interaction between strangers intersects with the performance of honed scripts of bodily classification. This theme is taken up in the fourth chapter through a discussion of the phenomenology of race; a choice influenced by the sharp escalation of racial labelling and consequent condemnation of the stranger since 9/11. It is argued that a complex machinery of inherited and instituted classificatory practices, symbolic persuasions, and social behaviours regulates the encounter, generally ensuring the continuity of familiar racial hierarchies despite the open hermeneutics of the

situated encounter. But the chapter also acknowledges that the intensity of aversion or recognition varies temporally and spatially, closely regulated by biopolitical mobilizations of race in a given situation (shaped, for example, by state rules on migration and assimilation to media and political languages of community and its outsiders). Accordingly, the chapter leans towards an anti-racism focusing on the biopolitical environment, such that the harms of thought-free bodily judgements that invade the encounter can remain contained.

In an always difficult habitat of survival for the marked stranger, collective understanding of imagined community is of critical importance for the power it possesses to define who belongs and the terms of togetherness. This is the theme of the last two chapters. The fifth chapter dwells on the post-national, more precisely, the idea of Europe as a symbol of unity; a symbol freighted by a history of imperial hauteur but also universalist and progressive ambitions and today captured by resurgent nationalist sentiment against the unassimilated stranger. The chapter chooses to address the question of imagined community by focusing on the making of the European public sphere, a simultaneously weak and strong communicative and affective space. It reveals how circulating keywords and prevalent sentiments are spreading a noxious contagion of aversion towards the stranger, but it also argues that as an incomplete and ill-formed space, the European public sphere has the potential of sustaining a counter-narrative of engagement with the stranger. The chapter summarizes the contemporary uses of xenophobia in Europe before outlining its case - and requirements - for a public sentiment of unity that values openness and curiosity in facing an uncertain and turbulent future.

The power of contemporary projections of an uncertain future darkened by the strange and unknown, however, is not taken lightly. The last chapter examines the implications of a resurgent narrative in the West of the future as apocalyptic – out of control and heading towards

catastrophe – and in need of warlike preparations, including the suspension of democracy and the elimination of the strange and impure. It is argued that a hitherto prevalent risk culture, banking on comprehensive insurance against the vicissitudes of a knowable future, is giving way to an understanding of the future as illegible, unstable and dangerous, and, for this, in need of constant vigilance and aggressive intervention. If the first culture offered qualified support to the stranger onshore, the second one is less accommodating in its selection of the subjects that count, indeed aggressive in its interventions to excise the destabilizing outside and the stranger who calls. Judging these developments as highly inflammatory, the book closes with a formulation of preparedness, open to all available resources and experiments of engagement at home and abroad, in order to anticipate the uncertain and turbulent future.

Like its reading of the social world, the style of the book is hybrid, combining multidisciplinary analysis with polemical and normative intent. The style may not please the reader looking for sustained disciplinary scholarship or a unitary theory of the subject. The choice, however, is guided by the urgency of the political moment. Frustrated with the current turn towards a politics of interpersonal and communitarian ties, and disappointed by the absence of a credible alternative that is bold about the virtues of the society of strangers, the approach adopted is to scan the landscape for evidence and proposals for new ways of gathering diversity into a functioning commons. The times press for a collage of ideas, illustrations and methods that show that multiplicity, solidarity and common provision remain valid principles to address a future that can only become more hybridized. To yearn for purity is to close off possibility.

— 1 — The Freight of Social Ties

The face is the only location of community, the only possible city.

Agamben, 2000: 911

Introduction

This chapter looks at the politics of community, more specifically, the widely held assumption today that the strength of interpersonal ties in a society has a direct bearing on its cohesiveness and the civic interest of its citizens. Those who hold this view interpret the continuing displacement of ties based on social familiarity, trust and local community by ties that are more self-serving, impersonal, dispersed and deferred (e.g., to states and markets) as problematic. Its dissenters argue, instead, that the sites and motivations of citizenship have simply changed, that the rise of impersonal and mediated networks of affiliation demand a different kind of politics of community. For them, the problem is one of optic, stemming from an overly humanist framing of contemporary social ties.

¹From Giorgio Agamben, *Means without End: Notes on Politics*, trans. by Vincenzo Binetti and Cesare Casarino (University of Minnesota Press, 2000). Copyright 2000 by the Regents of the University of Minnesota.

This chapter joins the dissenters, with a view to proposing a politics of social integration and cohesion truer to the material of contemporary social affiliation. It argues against an anthropomorphic interpretation of social connectivity, which yields inflated and unrealistic political expectations from societies characterized by multiple subjectivities and lovalties. Such interpretation, in posing local community and face-to-face communication as the antithesis of cosmopolitanism and virtual affiliation, is held to occlude other and hybrid geographies of attachment that lend themselves to a different kind of collective normative. Examining affinities formed in virtual space, through material objects, in intimate publics, and through friendship networks, the chapter proposes a scheme of social belonging and civic interest freed from the obligation of recognition among strangers.

Dualist Oppositions

Zygmunt Bauman (2000) has described ours as the age of liquid modernity, one characterized by a number of unsettlements. The first is the continual uprooting and displacement of peoples. A second is the slow creep of fear, anxiety and watchfulness into even the most intimate spaces as a sense of the world and home at risk takes root. A third is the displacement of collective cultures of identification by theologies of the self and specialist affiliation. A fourth is the weakening of traditional ties of homeland community, as individuals become members of multiple and technologically mediated networks of affiliation. For Bauman, a new world of fragile, ephemeral and dispersed affiliations is arising to replace traditional community ties, a prognosis endorsed by many similar accounts of human displacement linked to globalization, rising inequality, and risk and uncertainty.

Such thinking acknowledges that the impact of liquid modernity (or however else we may describe our times) on

different social actors is variegated, shaped by social circumstances, location and individual capability. It accepts the differences in affiliation behaviour between the jetsetting professional loyal to no country, the migrant developing new connections and sustaining distant ties, the hapless indigene sheltering in tradition and heritage to cope with rising immigration, the believer taking comfort in religious community and dismayed by hyper-modernity and secularism, or the poor person left with only the immediacy of family and local ties.

Normative judgement on the world on the move, however, seems less encumbered by such nuance. Typically, as Tim Cresswell (2006) observes, reaction has been either 'sedentarist', yearning for the security of strong ties forged in defined communities and wary of a future without such affiliations, or 'nomadic', valuing mobility, exteriority and multiple ties, and elective affinities in the negotiation of difference. While the one looks back to territorial and interpersonal bonds, the other finds cause in cosmopolitan connections and other kinds of border crossing (Sennett, 2008a).

'Community' has returned as a keyword in sedentarist thinking, as the antidote for the failings of liquid modernity, reviving once again yearning for social unity based on strong ties between known people and places (against the society of strangers that exists mainly in the public sphere). Accordingly, the anxiety of cohesion appears as a lament of lost heritage, weak social ties, waning local commitment and disappearing cultural homogeneity. The surge of interest in recent years in social capital as the integrating resource of the plural modern society is symptomatic of this attempt to infer states of collective well-being from the quality of local associational life. The social capital narrative looks to restoring social bonds within and between communities, as it does to the active participation of citizens in civic life, judging the trust, mutuality and capability released as the catalyst of creativity and social togetherness. Its policy adoption has been ubiquitous,

rolled out through programmes aiming to restore fractured neighbourhoods and build civic involvement, interpersonal and inter-cultural contact, vibrant public spaces, and community feeling in general. The aim has been to return modern society to the cares and inventions of belonging in small worlds.

If there is a keyword in nomadic thinking, it is 'cosmopolitanism'. Common to the many versions of cosmopolitanism today is an acceptance of mixity and mobility, ties with distant and different others, and care for worlds beyond the familiar and the near. Cosmopolitans consider the narrative of local community as an anachronism or constraint on those who do not conform, wish to be different, or belong to other spatial gatherings. For them, bounded communities lack the capabilities and cultural dispositions that people immersed in multiple webs of affiliation possess (Simmel, 1964); a last resort for people without access to multiple relational worlds. Their interest lies in looking for ways to work the grain of globalization - the energies of mobility and migration, global cultural exchange, transnational organization, plural affiliation in order to sustain an ethos of care for home and the world. The bindings of universal reason, world society, internationalism and transnational democracy are seen as the building blocks of such an ethos.

The Material of Attachments

Although the geographies of affiliation traced by communitarians and cosmopolitans are different, the normative concerns are similar. Troubled by the fractures of individualism, anomie and social disconnection, both seek to restore the society of human obligations (between individuals and towards communal interests). It is hard to fault such 'peace proposals', to borrow Bruno Latour's (2004a) evaluation of Ulrich Beck's (2002) appeal for a new cosmopolitan politics to deal with the dangers of

globalized risk, but a question prompted is whether the proposals must be restricted to a subjectivity of human recognition and care. As Latour asks, why must 'cosmopolitics' fall short of an interest in the cosmos itself, including 'all the vast nonhuman entities making humans act' (p. 453)? The same can be asked of communitarianism.

Any cursory glance at the composition of contemporary human attachments - in virtual space, to objects and other material entities, and in the public arena - suggests that many kinds of intimacy can flow into a politics of care. In doing so below, with the purpose of looking beyond the binary of cosmopolitanism and communitarianism, the aim is not to ignore negative feelings aroused in these spaces of everyday affiliation: the anger, terror, suspicion, delusion and betraval that circulating images, words, things and bodies provoke, so often as the means of selecting friends and enemies, home and the outside (Runciman, 2008; Ngai, 2005; Tilly, 2005; Herzog, 2006; Turnaturi, 2007). Instead, the intention is to show that a politics of care, if this is the appropriate approach to integration in the society of strangers, can be decentred from considerations of interpersonal obligation and civic orientation which will prove to be elusive in the hyper-diverse and fluid community.

Hub-and-spoke attachments

It is a truism that growth of sophisticated communications systems linking faraway people and places has transformed the geography of social ties. Early commentary on developments such as mobile telephony or Internet-based communication treated the latter as substitutes for old forms of social interaction. Typically, the response was either nostalgia for a disappearing world of interpersonal intimacy and local commitment, or interest in the potential for relational proximity at a distance offered by new technology. New social spaces such as Internet communities or

dispersed social networks were compared to old spaces of affiliation, which remained the standard of measure (e.g., of trust and mutuality). They were not viewed on their own terms. As the new communication media become absorbed into everyday life, the view grows that old and new spaces of interaction coexist, overlap and even shape each other (Wellman, 2001; Clark, 2007), supported by research showing that the ubiquity of digital networks has neither displaced interpersonal contacts nor weakened social ties.

The Pew Internet and American Life Project, which undertakes large-scale surveys of Internet use in the USA, finds, for example, that high levels of surfing (to gather information or participate in virtual communities) coincide with more people seeing each other in person and talking on the phone (Boase et. al., 2006). It also finds, importantly, that habitual usage of the new media is changing the structure of social interaction (e.g., allowing social capital to be formed through contacts and resources acquired through the Internet). Similarly, conclusions are drawn by research on the social worlds sustained by multimedia technologies. These are worlds sustained by phones and microprocessors of various kinds, combining voice, visibility, text, email, photos, music and videos, allowing, typically, teenagers and young adults, who switch effortlessly between different communication domains, to maintain contact, cultivate relationships, scan horizons, buy and sell things, participate in chat rooms, write blogs, join specialist groups and so on.

What is emerging from such research is that the nature of mediated engagement is only in part purposeful and short-lived; about maintaining ongoing connections. It is also about the everyday inhabitation of new worlds of interaction with their own ethnography of engagement with known others and strangers, and their own situated etiquettes, reciprocities and affects, spilling over into other spaces of engagement. The caricature of the hyperconnected geek living in a closed virtual world and

incapable of sustaining meaningful social relationships outside of this world is just that - a caricature. As social familiarity with multimedia technologies grows, and as sophisticated software capable of integrating web, image, video, voice and sound becomes available, the case grows stronger to see virtual habitats and physical habitats as a single yet variegated space of being with others. And, as such, more is being added to the ecology of social possibility, rather than any subtraction from an old world of physical and proximate ties. It has been shown that mobile phone usage, for example, supplements physical contact and socializing, reinforces networks of care, strengthens elective affinities, enables participation in specialist networks and campaigns, and helps to forge new relationships (Chambers, 2006). As Yochai Benkler observes, the new relationships will not:

displace the centrality of our more immediate relationships. They will, however, offer increasingly attractive supplements as we seek new and diverse ways to embed ourselves in relation to others, to gain efficacy in weaker ties, and to interpolate different social networks in combinations that provide us both stability of context and a greater degree of freedom from the hierarchical and constraining aspects of some of our social relations. (Benkler, 2006: 377)

Benkler's observations suggest that the 'web of group affiliation' today looks different from the time when Simmel coined the phrase in 1922. An old architecture of concentric social worlds that defined identities in quite strong ways — with family, rural community and tradition on the inside and urban existence and modern society on the outside — is being replaced by a hub-and-spoke architecture, radiating outwards from individuals and placing them in a variety of relational networks offering different types of ties (weak or strong, dispersed or local, temporary or stable, sparse or populated). The new architecture offers more sites of con-

nectivity, opportunity and identity to the networked individual, with more relational possibility to those on the physical periphery or let down by traditional frames of social identification such as family, community and religion (Pescosolido and Rubin, 2000). Today, the technological lies at the centre of social capital formation, with the latter itself transformed in its yield and potential.

But even more comes into view if we consider the continuum of virtual and physical interaction not only as a communication space, but also as a space of human dwelling, with profound implications for individual and social subjectivity. Deborah Chambers (2006) claims that the rise of new spaces of interaction is not about making social ties more 'thinned out, fluid and transient' (p. 154), but about new rules of social being. She notes, for example, that as ties become more and more elective, traditional habits of attachment based on loyalty or given community are being displaced by tests of affiliation based on moral conduct, friendship and mutual care. Increasingly, it is proof of affective and ethical conduct and shared outlook that is sought (spilling over into traditional sites of affiliation such as families and communities), in the process altering the meaning of what it is to be social and caring.

This includes the role of non-humans. Commonly, the communications infrastructure – the assembly of cables, machines, screens, software, and electronic flows – has been seen as exogenous to the texture of social relations. However, hub-and-spoke networks invite consideration of the agency of all elements – material and virtual, human and non-human, visible and invisible – assembled together to form ecologies of human being and dwelling. The assemblage and its maintenance are what make these networks a 'microsociological' environment with powerful effects on subjectivity, as Karin Knorr Cetina (2005: 215) observes from her research on software-aided global financial or terrorist networks. Her work shows how habits of surfing these intricate but lightly coordinated transactional

environments, with the aid of all sorts of intermediary, shape subjectivity and stance. Knowing, feeling and acting with others relies, for example, on technologies of amplification for effectiveness (e.g., powerful dissemination engines or domination of strategic user sites), texturing of the interactive space by hardware, software, screen iconography, databases and usage patterns, and tools of carriage and storage that allow multiple temporal and spatial zones to be brought into the temporal and spatial present.

For financial traders, these devices make the face-toscreen and ear-to-phone environment a social world, enabling transactions by equipping individuals to become traders with particular qualities in a virtual marketplace. Within its inhabitation, information and opportunities are sorted, trust and loyalty constructed, decisions made about who and what counts, and professional and social identities honed through habits that include objects, data, software, images and voices as co-actants (Knorr Cetina and Bruegger, 2002a). The same can be said about the agency of the networks inhabited by al-Qaeda activists, where the combinations of face-to-face, face-to-screen, downloaded files, wired dogma, phone secrecy, and other elements of a closed interactive world powerfully shape thought and practice. Knorr Cetina (2005) shows how its inhabitation orients the activists to imagine time as the passage from an unjust present to a just future through jihad and martyrdom, to develop a discipline of patience and preparedness based on cellular organization and network communication, and to cultivate strong feelings of power and legitimacy in a rich field of images, words, sounds and recitations that bind together a dispersed community of believers.

In the network society, it is the habit of acting in a distinctive transactional environment, and in ways that allow no easy separation of humans and non-humans or distinctive spheres of social interaction, that shapes judgement about friend and foe, home and the world, community and its other, belonging and aspiration. Divorced from the

materials and rituals that give social ties their shape, meaning and content, to observe that contemporary social ties are becoming more elective, dispersed and plural than in the past is to say little definitive about whether, as a result, modern societies are becoming more or less caring, more or less civic (Castells, 2009).

Material intimacies

To recognize the materiality of the transactional environment is to consider the possibility that attachments formed with and through things (and nature for that matter) shape the nature of ties between humans. This is exactly the orientation of emerging work on material culture interested in the details of how the object world - from tools, machines, and communications infrastructures, to toys, gadgets, ornaments, prosthetics and buildings - is implicated in the human experience. Objects, and ties with them, are shown to be part and parcel of human identity, intrinsic to human feelings, including those towards strangers. 'Things', as Daniel Miller (2010: 52/3) writes, 'the whole system of things, with their internal order, make us the people we are. And they are exemplary in their humility, never really drawing attention to what we owe them. They just get on with the job.'

If, as Miller claims, 'culture comes above all from stuff' (p. 54), it makes no sense to think of the object world as a corruption of otherwise true human qualities. Such thinking has been a hallmark of sceptical writing on modernity for a very long time, linking commodity fetishism to cultures of individualism, greed and alienation, blaming reification and technological dependency for destroying cultures of craft, sociability and civic engagement, worrying about the departure from true human nature owing to artificial alterations of the body. Against these doom-laden accounts of human nature separated from itself, only siren voices have stood out, unwilling to

dismiss offhand the enchantment of valued objects and technologies that make life that bit easier, happier or more exciting (Bennett, 2001).

Out of a more textured ethnography of humans and materials in relation is arising a theorization of the objectworld as anything but inanimate. Things are seen to possess 'creative élan' (Bennett, 2010), to be part of the human condition, proof of the constitutive hybridity of humans and subjectivity formed and performed through enactment (Haraway, 1991; Thrift, 2005a). Here the assumption that objects enter from the outside to alter the private or public lives of humans is rejected. Instead, the entanglement of objects and humans is taken as given, the nature and intensity of human care - towards the world and one another - understood to be shaped in situated material practice. We see this most clearly in Daniel Miller's (2008) book The Comfort of Things, which explores people's intimacies with everyday possessions - music collections, photographs, furniture, Christmas decorations, laptops, memorabilia, ornaments and more. In Miller's hands, the intimacies turn out to be the stuff of living, giving meaning to people's lives, shaping identities, organizing memories and ongoing relationships, influencing attitudes towards neighbours, strangers and the world at large.

Miller shows how the intimacies have 'much more to do with actually constituting the people themselves rather than just standing for them' (p. 158). He does this through portraits of attachment in thirty homes on a terraced street in South London. Miller traces the cares, identities and affiliations of people through practices of home-making and affective care for possessions that are always more than things owned. The practices and objects dance into play as prosthetics of human being. The tidy apartment without many possessions speaks for, and is, George; an occupant who has always lived in care homes, held no intimate relationships, and speaks clinically about waiting in this liminal space 'for his time on earth to be over' (p. 17). The sparseness of the flat and the lack of desire to

bring things into it express George in his loneliness and quiet desperation. They are not simply measures of his state of being. Further along the street, in contrast, Miller opens the door to Mr and Mrs Clarke, immersed in Christmas decorations, carefully curated rooms and thoughtfully prepared meals. Here we find an intimacy of space and a form of material care that epitomize the craft attentiveness – the skills of cultivated beauty and harmony – shown by the elderly couple for each other and their extended family.

The book abounds with insight on the vitality of objects and their role in human formation. We meet Marjorie, whose little mementos of the forty children she has fostered are a record of her family life, radiating care, whose constant alterations in her appearance speak for her desire to stay young and socially connected, and whose moral compass is expressed in the way she lives with her possessions. We meet Mrs Stone amidst the religious books, music and pictures that enrich her otherwise solitary existence and reaffirm her community ties, while the many photographs of her extended family scattered around the house remain a memento of a past life and past intimacies. We meet Dave, living alone in an all but empty flat, clinging on to a CD and photo collection that have become the ballast, witness and staging post in a life in which nothing has come easy, hazed in heroin addiction and many melted relationships.

In all these vignettes, things and relationships with them return as the stuff of social ties and affects. The entanglements make for ties with known and unknown others, always without straightforward civic and political connotations. In Miller's street, the good citizen craved by communitarians and cosmopolitans – well connected, socially motivated, non-materialistic – is a rarity. We encounter only Charles, a man of Spartan needs and strong friendships, who is a pillar of the local community, running the Neighbourhood Watch, fighting off developers, mobilizing neighbours and leading the campaign to protect local public amenities. Class, education, connectivity, biography, lifestyle and sense of place all weave into his strong

sense of civic duty. None of this exists in the rest of the street, where 'most people didn't even seem to know their neighbours, and there was very little social interaction based around the street itself. This was not a place one could imagine holding street parties. Even long-term residents could only talk about local society and neighbourliness as something historical, not a feature of contemporary life' (Miller, 2008: 153).

Does this absence make the inhabitants of the street lesser citizens, socially indifferent and closed off from the world, or is such an account an invention of a discourse on social ties that neglects the affective push of material culture? More likely the latter, for Miller's research shows clearly how domestic material care bends social outlook and interest: George's frugality also revealing a numbness to bureaucratic society and an aversion to social engagement; Marjorie's and the Clarkes' curatorship of things and family extending to interest in the caring society; Mrs Stone's religious paraphernalia strengthening her ties to Britain rather more than the faded photographs of kith and kin linking her to Jamaica; and Dave's slow realization that the space and things in his council house that provide the basics of a decent life stem from an enabling welfare state.

In sum, the material of dwelling in different transactional spaces cannot remain outside explanations of social identity and affiliation. It forms the habits of negotiation of the familiar and the strange, the inside and the outside, the private and the collective. Care for the world and social positioning emerge out of these habits of inhabitation that blend perception and performance, intent and experience, and affective ties with many persons and non-humans.

Regimes of Bodily Worth

Another omission in writing on social ties is the neglect of intersections of biology and culture, of how bodily dispositions affect associational propensities. Bodily composition

- cerebral, neurological, genetic, molecular, psychological, physical, sensory and emotional – is centrally implicated in making humans into thinking and feeling beings, social subjects and cultural actors. The neurosciences and the cognitive and behavioural sciences offer considerable evidence to confirm that thinking and feeling are intertwined, that humans cognize through the senses and neurological reflex, that perception and judgement precede consciousness, that body and mind are in constant play with each other (Damasio, 2003; Johnson, 2006). Social research sensitive to these findings increasingly recognizes that stances towards others and the world – perceptions, values, beliefs and practices – are formed from the entanglement of cultural and biological biography (Connolly, 2005; Castells, 2009).

This is not the aspect of bodily sensing that I wish to explore here, partly because the connections between biology and habits of human categorization are taken up in chapter 4. Instead, I dwell briefly on the significance of state regimes of categorizing, evaluating and disciplining human bodies, that is, the biopolitics of naming and placing the normal and abnormal body. Biopolitical regimes name the bodies, traits and behaviours that count more or less in a society, laying down norms and rules of acceptability and unacceptability, mixing coercion and consent. As a raft of work pioneered by Foucault shows, biopolitics never only involves the impositions of authority, but is also sustained through everyday social conduct, precisely why it must be interrogated in any explanation of living with difference. Biopolitics is a means of 'getting close to what human beings take themselves to be' (Rose, 2007: 25).

Contemporary biomedical developments, perceived as therapies of well-being and markers of social worth, serve as a good illustration of how biopolitics and subjectivity are linked together. For those who can afford them, a raft of therapies have become available – administered professionally, over the counter and by individuals themselves – and are talked about as life necessities by health, fashion

and fitness campaigners, politicians and policymakers, and the mass media. Nikolas Rose (2007) describes this as no less than a change in the meaning of personhood, involving new norms of individual and collective subjectivity based on bodily manipulation at every level (genetic, cellular, psychological, sensory, physiological, existential), and involving diverse therapies such as fitness, dieting, cosmetic surgery, organ replacements, drug enhancement, and genetic, chemical or hormonal recomposition. In this culture of treating the human body as a machine with detachable parts that can be repaired or replaced (Hacking, 2007), a new kind of subjectivity is being formed. For Rose (2008: 24-5), 'we are increasingly coming to relate to ourselves as "somatic" individuals, that is to say, as beings whose individuality is, in part at least, grounded within our fleshy, corporeal existence, and who experience, articulate, judge, and act upon ourselves in part in the language of biomedicine'.

These changes in bodily culture are not confined to how individuals see and act upon themselves. They represent the 'somatization' of politics itself. For Rose, the 'direct mapping of personhood, and its ills, upon the body or brain', supported by raised public awareness of every detail of the body and its connections with well-being, is now 'the principle target of ethical work', linking 'what we do - how we conduct ourselves - and what we are' (p. 26). Bioconduct is the measure of what it means to be a good citizen, or a responsible subject, evaluated through norms of healthy living, medical awareness and preventative care, and enabled by various curative techniques and lifestyle choices. Those who fall short by choice or circumstance - and the group includes the stranger without means or necessary cultural prerequisites - are being reconfigured as somehow deficient and deviant or unwanted citizens. The body and its parts, biomedicine, cultures of well-being and conducts of living have become measures of social worth and political subjectivity, part of the sorting machine of good and bad citizenship.

The result is a new 'ethopolitics' of community and belonging, involving 'attempts to shape the conduct of human beings by acting upon their sentiments, beliefs, and values - in short, by acting on ethics', aided by 'selftechniques by which human beings should judge and act upon themselves to make themselves better than they are' (Rose, 2007: 27). Such attempts amount to a substantial reordering of the rules of social evaluation through therapies of the self, models of personhood validated by experts, professionals and governments, incessant media commentary on the perfect body and its corruptions and biomedical necessities, and projections of the good society based on the bodily form of the individuals taking control over their lives. They rely on elective belonging and responsible living in a biologically defined social order. Accordingly, affiliation choices, judgements about others, understandings of community and standards of citizenship are derived from catalogues of vital states of being. People's eating habits, states of fitness, physical appearances, psychological states, and medical conditions, increasingly speak for their worth.

Biopolitical regimes – and there is more to them than simply the politics of the healthy body – define community, its membership and its affective qualities. Their rules of enforcement and compliance are crucial determinants of belonging, including sentiments of citizenship and affiliation, working in the background of consciousness, casually sorting out the value of different biological bodies. The ordering of the indigene and the stranger, as we shall see in the chapter on race, occurs well before and long after any declaration of commitment by the stranger or the citizen to community or to various kinds of person.

Friendship Networks and Intimate Publics

To return to human leanings, there are still other mediaries of community and fellowship. An important site of affiliative orientation today is friendship. Work on friendship,

like that on material culture, tends to be less alarmist about a world of declining social ties. In following social proximities as they occur, rather than matching them against an ideal type of the good society, communitarian or cosmopolitan, such work finds friendship to be an important primer of social care and solidarity (Derrida, 1997; Pahl, 2000; Nancy, 1993). Deborah Chambers (2006), for example, claims that many contemporary forms of association - queer communities, men's and women's groups, urban social movements of various kinds, youth networks, issue-based coalitions, professional communities, virtual communities - tend to be held together by loyalties of friendship. Care and solidarity here relies on treating peers as friends, valued for what they put in, for being there in adversity, for earning respect on the basis of their actions as equals and reciprocal partners.

Chambers argues that the networks of elective affinity that proliferate in post-traditional societies, possess forms of mutuality and obligation that have been largely ignored in conservative accounts of social ties. Following Derrida (1997), she sees in these networks a new symptom of social loyalty and affinity, one that values reciprocity, and is wary of compulsions of family, tradition, nation and ideology. While general projections of friendship as the measure of empathy in the society of strangers, such as Derrida's writing on friendship and hospitality, can be criticized for underestimating the raw power of the politics of nation and nationalism, the democratic openings of elective affinities that now mediate many spaces of social engagement should not be ignored for what they say about new ways of organizing community.

This is made amply clear in Leela Ghandi's (2006) discussion of friendships struck in the most unlikely and adverse circumstances between Indians and British intellectuals and activists during the late Victorian period – friendships that drew on shared concerns, mutual respect and cosmopolitan aspiration, cutting across an entrenched politics of opposition between bloody defence of empire

and fervent anti-colonial mobilization. Ghandi claims that during this unlikely period, 'multiple, secret, unacknowledged friendships and collaborations between anticolonial South Asians and marginalized anti-imperial "westerners" enmeshed within the various subcultures of late Victorian radicalism' (2006: 10) enabled a new cosmopolitanism that broke free from the unvielding nostra of conservation or reform on each side. Out of a fervent exchange of subversive ideas, a shared programme of human emancipation emerged, integrating the values and practices of vegetarianism, animal welfare, sexual equality and theosophy into socialist, libertarian and anti-imperial thinking. In this almost implausible alliance between distant strangers who ran the risk of severe persecution from their respective authorities, according to Ghandi, commitment and mutuality depended on 'friendship as the most comprehensive philosophical signifier for all those affective gestures that refuse alignment along the secure axes of filiation to seek expression outside, if not against, possessive communities of belonging' (ibid.).

The interesting claim here is that friendship allows new intimacies to be struck and sustained, new worlds to be imagined and desired, through a relational dynamic of co-cultivation, mutual regard, and affinity between unexpected allies. Friendship of this kind is plentiful today, extending also, as Fran Bartkowski (2008) has suggested, to non-humans - embryos, technological beings, animals - who have become 'kissing cousins', intimate others who talk back, require cultivation and sometimes respond affectively. Of course, there is a risk of overstating the radical qualities of friendship, which in the main cements a tryst with the already known, similar or familiar. Perhaps the point to be made is that any venture into new alliances and allegiances - including with the stranger - requires an affective link, one that can be nourished by openness to fruitful exchange with the unknown and distant.

And this occurs especially when there is a common interest or concern, binding strangers emotionally even if

not personally. We see this in Lauren Berlant's (2008) study of publics formed around early twentieth-century blockbuster films and popular novels such as Show Boat and Loves of a She-Devil. In her book, Berlant does not pursue the familiar argument that these films and novels formed an imagined community that Americans came to feel part of and care for, by emotionally living out the American way of life or its core values. Instead, she explores their role as spaces of identification, as a 'porous, affective scene of identification among strangers that promises a certain sense of belonging and provides a complex of consolation, confirmation, discipline, and discussion about how to live as an x' (p. vii). Drawn by epic films and novels that achieved mass circulation during the early years of a forming American public sphere, millions of Americans - white women in particular - began to cohabit a shared intimate space. The dramas, intensively felt and extensively discussed, became summaries of the American story and its account of the 'true' American woman's duties and cares, hopes and aspirations, and differences from the 'other' woman at home and abroad. Stereotypes of self and other, and of past, present and future, not only sprang forth from the blockbuster, but also began to be absorbed intimately as measures of conduct, well-being and hope.

Berlant's argument is that the popular politics of America – including judgements about friend and foe or about the familiar and the strange – was sustained by the affective swirls of such intimate publics. On the basis of such evidence, Berlant concludes, more generally, that 'politics, mediated by publics, demands expressive assurance, while political subjectivity is, nonetheless, incoherent; that ideological incoherence or attachment to contradictory ethics and ways of life is not a failure but a condition of mass belonging' (p. 22). This is precisely why the tools of political persuasion have for so long worked on public sentiments, despite the rhetoric of rational preference since the Enlightenment. As Jason Frank (2005) argues,

eighteenth-century moral sentimentalists felt confident in claiming that the civic subject would arise out of 'ongoing encounters with enthusiasm' taking 'precedence over the articulation of command mentality' (p. 372), stirred by 'that uncommon, extraordinary passion ascribed to those who bring the new into the world; heroes, poets, orators, musicians, even philosophers themselves' (p. 389). Similarly, in the modern age, political campaigners have worked assiduously to develop tools that can stay close to the ambivalence, incoherence and contradiction that animate intimate publics (Amin and Thrift, 2012; Hariman, 1995 and 2009a; Lazzarato, 2004; Castells, 2009). This is how some strangers and worlds come to be felt as anomalous, as Sianne Ngai's (2005) book Ugly Feelings reveals, showing how a history of caricaturing the African-American in books, films and television as excitable and susceptible has sustained a politics of nation fixed around sentiments of frustration, anxiety, paranoia and disgust towards the non-American American.

Work on social ties has largely ignored the significance of intimate publics, in the process forgetting to acknowledge the myriad gatherings (e.g., Internet communities of various kinds, cinema enthusiasts, bloggers and tweeters, newspaper and magazine readerships, television publics in which the circulation of feeling defines community and its outside (Lazzarato, 2004; Terranova, 2007). Gabriel Tarde (1989 [1890]) understood this more than a century ago in his explanation of public culture as a swirl of contagious feelings that form the imitating crowd (see also Barry and Thrift, 2007; Borch, 2005). Contagious feelings, which spread through the collective unconscious (see chapter 3 for an urban illustration), render the commons tangible and bring the collective into the heart of personal cares and interests. They muster mass energy around stories of legacy and future travel, the community to be defended and the contaminations to be eliminated (Toscano, 2007). Intimate publics are no distraction from the 'real' substance of social life, but rather the spaces in

which a dispersed population becomes energized in a political society with distinctive yearnings and leanings (Laclau, 2005).

Conclusion: Social Ties and the Politics of Integration

To recognize the many ways in which individuals become collective subjects and caring citizens is to put into context. and ultimately look beyond, a politics of human recognition to integrate the society of strangers. Public sentiments today are dispersed across many sites of affiliation. Instead of seeing them as a dissipation or distraction that must make way for communitarian or cosmopolitan attachments to ensure cohesion in the open and diverse society, might it not be more fruitful to work with them? The sentiments will not go away, and their sites have their part to play in a new politics of social solidarity and cohesion. Each site reveals something of the material and effort that goes into fashioning relational proximities and empathies, and together, the sites act as a powerful assembly of public feelings, whose juxtaposition, rubbing together and orientation towards new forms of intimacy will determine experience of the plural society as good or bad.

This is not to diminish what social transactions reveal about a social order. I am sympathetic to Charles Tilly's (2005) claim that collective cultures in a society (e.g., its propensity for violence, the treatment of immigrants, the strength of feeling for the commons) are more influenced by transactional legacies between people, and with institutions, than by behavioural characteristics (e.g., the attitudes of particular social groups) or systemic conditions (e.g., structures of economic reward or social recognition). Tilly may be right that research and policy have yet to fully grasp the power of social transactions. Where this chapter differs from Tilly's and other relational readings of the social is in recognizing non-humans – objects, symbols,

technologies, intimate publics – and the multiple geographies of affiliation they support as also part of the field of social transactions, and for this, centrally implicated in the formation of collective culture. Such an understanding of social transactions opens new possibilities beyond a politics of human recognition.

In such a field of plural attachments, the worthy ambition to foster empathy between strangers through, say, local multicultural or multiethnic projects (see chapter 3) or new metaphors of collective unity (see chapter 5) is likely to flounder. Fulfilled in their given or elective communities, most people other than the very young or the already cosmopolitan are not likely to be persuaded by a politics of care for the stranger, above all at a time such as ours of detailed definition of the marked stranger (see chapters 5 and 6). This is not in any way to exonerate the self-regarding, indifferent and incurious society. This book stands for exactly the opposite but, conscious of the stubborn impediments that stand in the way of politics of care for the other, it turns to other sites of conciliation and integration, beginning with the spaces of affiliation discussed in this chapter.

A first step is to work with existing social transactions, sympathetically but critically, looking out for evidence of openness to newness and difference, curiosity for the strange and unknown, empathy for the shared and enriching commons, and commitment to a labour of cultivation. This requires suspending judgement over the greater or lesser authenticity of friendship, craft care, object love, technological society, public feelings of compassion and curiosity (Hariman, 2009b), or whether the culture of the public sphere supports consensus or vigorous disagreement (Nancy, 2000; Delanty, 2003). The stance adopted by the book towards the attentive society is one less interested in lead actors and states of being (e.g., the caring state or subject, contact among strangers, local community) than in the proliferation of everyday attentiveness as a condition of being in the world. Thus, its interest in

transactional affinities relates to the potential of affective amplification, such that caring in different ways and for many things becomes central to identity and institutional practice (Tobias, 2005), steadily questioning feelings of animosity and suspicion towards the stranger as primary public sentiments (Connolly, 2008).

Affective amplification, however, as much of the rest of the book argues, will not suffice to negotiate the plural society in ways that keep harm at bay from the marked stranger, First, the many forms of institutionalized aversion and discrimination (e.g., political authoritarianism, social inequality, economic exploitation, institutional injustice) that silently neutralize positive feelings will not disappear as a result of affective amplification, even if without the latter there can be little public push for political and institutional reform. All too frequently, the very practices of care are filtered through the hegemonic institutions of social organization, altered in the process (see, for example, Povinelli, 2006, on how liberalism changed meanings of individual love in settler colonies). An expanded ethic of care will help to reign in but not neutralize the enduring sources of discrimination and harm.

Another kind of politics is also required, working on legislative change, institutional reform, principled and democratic participation, indignation against discrimination and oppression, making latent injuries matters of public campaign, and investing progressive reforms with bureaucratic power (Amin and Thrift, 2012; Žižek, 2008; Connolly, 2005; Latour and Weibel, 2005). Even an expanded politics of care cannot do without systematic and instituted organization for multiplicity and difference, equality and fairness, and common venture. What this might mean in connection with the stranger is taken up in the chapters that follow, with the next one examining the encounter between strangers in collaborative work.

Collaborating Strangers¹

To be a learned ignorant in our time is to know that the epistemological diversity of the world is potentially infinite and that each way of knowing grasps it in only a very limited manner [...] This is the territory of the artisanship of practices, the territory of the ecology of knowledge.

Santos, 2009: 115 and 1192

Introduction

The modern social order, with its elaborate divisions of labour and multitude of separations (physical, cultural, emotional, dispositional), still manages to retain a good measure of transactional trust among strangers, at least those not singled out as troublesome or ill-fitting. That people remain willing to put their trust in remote actors and institutions and to cooperate with others who they do not know is a conundrum that requires explanation.

¹This chapter reworks and develops a similar argument from an earlier article published in Research Policy (Amin and Roberts, 2008a). ²Reproduced by permission of SAGE Publications Ltd., London, Los Angeles, New Delhi, Singapore and Washington DC, from Santos, B. S., 'A non-Accidentalist West? Learned ignorance and ecology of knowledge', 26: 115, 119 (© Theory, Culture & Society, 2009).

Without such trust, the distributed and segmented society would break down, collapse into uncontrolled opportunism or warfare at the slightest disturbance. Attempts at explanation stretch from suggestions that humans are intrinsically cooperative and sociable (though perhaps in small collectives or under conditions of relative abundance – cf. Dunbar, 2004), to explanations rooted in the institutional history of human socialization and delegation, as Paul Seabright (2005) proposes in his book *The Company of Strangers* in connection with the endurance of cooperation:

The answer consists of institutions – sets of rules for social behavior, some formal, many informal - that build on the instincts of the shy, murderous ape in ways that make life among strangers not only survivable but attractive, potentially even luxurious. These rules of behavior have made it possible for us to deal with strangers by persuading us, in effect, to treat them as honorary friends. Some of the institutions that make this possible have been consciously and coherently designed, but many have grown by experiment or as the by-product of attempts to achieve something quite different. [...] A division of labour needs to be robust against opportunism ... participants need to be able to trust each other - especially those that they do not know. Social cooperation depends on institutions that have exactly such a property of robustness. Given the facts of human psychology, they ensure that cooperation not only happens but is reliable enough for others to be willing to take its presence for granted, at least most of the time. One such robust institution ... is the institution of money. Another is the banking system. (pp. 4–5)

Perhaps, to elaborate on the argument of the preceding chapter, trust is not a qualified or unqualified given of human nature, nor a delegated property, but is instead a transactional good dependent upon active labour to align heterogeneous bodies. This would be to imply that the strange or different is made familiar through practices of connectivity (in all manner of space, and involving humans, non-humans and many intermediaries). Trust and collaboration in this account would be considered as relationally constituted, but not reducible to the quality of social ties, requiring deliberate organization and collective orientation. Trust in the company of strangers may be something that requires continual work.

This chapter develops this line of thinking by turning to collaborative practice, so as to identify the nature of work that sustains productive alignment between strangers. While subsequent chapters focus on other spaces of encounter, such as the public sphere or the open spaces of the city, here the interest lies in underrating how the company of strangers can become a basis for identity formation and collective creativity. The chapter turns to the organization of creative learning and innovation, in part to show that the very pulse of the knowledge economy beats from stranger proximities, assembled in ways barely recognized by both the literature on social ties and trust, and by more orthodox writing on the economics of innovation.

The chapter focuses on the prosaics of situated practice, involving learning in doing, techniques of alignment between heterogeneous bodies, and the assembly of expertise in application – in laboratories, workshops, project teams, and virtual collaborations – to explain collective creativity. Explanations of innovation as the outcome of individual genius, technological breakthrough, the production and appropriation of codified knowledge, and the integration of scarce inputs into the production function, are accordingly rejected for their failure to appreciate how the lived material practices of doing and engaging instantiate codified knowledge itself and individual expertise (Duguid, 2005).

The theorization of innovation as the yield of learning and knowing in action is by no means settled or uniform. At one end, work in science studies sensitive to the 'mangle of practice' (Pickering, 1995) from which innovations arise

remains reluctant to isolate the particularities of breakthrough, mindful of the entanglements of mind, body and feeling, human and non-human agency, and recursive and improvised combinations that are involved in a process of always contingent and open discovery. Complementarities, frictions and serendipities, alike, of piecing together heterogeneous materials, technologies and capabilities are considered significant, but even then, as catalytic sparks that may never come to fruition or may look quite different from original intentions. This body of work, thus, seeks to distil something from the practices of discovery (and failure), instead of looking to abstract general principles and formulae of learning and knowing in action.

At the other end, we find work that is much more certain about the social sources of innovation, and that has been avidly taken up by knowledge managers in firms and organizations. Here, learning and knowing in action are explained as the yield of particular forms of interpersonal engagement in collaborative work, returning trust, mutuality and collaboration as the stuff of modern creative enterprise. Amidst the giant and impersonal structures of contemporary capitalism - the state, bureaucracy, conglomerates, supply chains, codified knowledge, material and technological infrastructures, institutionalized finance - are found the simple but magical properties of smallgroup loyalty as the lubricant of economic creativity. What follows engages critically with this account, in agreement with the emphasis on situated collaborative practice, but, siding with the thinking on the mangle of practice, looks to delve more deeply into the ontology of learning and knowing in doing. What is uncovered is a dynamic that varies substantially between collaborative settings, is object-centred or object-mediated, and involves loyalties and obligations that are always provisional and qualified. Any link between social mutuality and creativity appears buried deep in the filigree of disparate objects, bodies and capabilities held in tension by joint work (Mitchell, 2008).

Such an examination of the detail of collaborative work is important for the politics of the stranger. The chapter shows that it is in purposeful activity that centres and peripheries are brought closer to each other, differences and divergences negotiated, and the anomalous naturalized or given productive charge. The repetitions of daily practice, the reconciliations of common endeavour, the compulsions of targets, deadlines and collective goals, and the cares and capabilities arising out of engaging work, are modes of reconciling difference. The micro-practices of creative forms of joint endeavour (remembering that many other forms, which deskill, divide, alienate and fuel animosity, have no such yield) have clear implications for strategies of social inclusion, considered at the end of the chapter, including the need to expose the contradictions of contemporary rhetoric on collaborative capitalism, which still manages to rule out certain strangers.

The Granularity of Situated Practice

'Community of practice' has emerged as a keyword in policy-oriented thinking on situated learning and knowing. It originates from the pioneering ethnographic work of Jean Lave and Etienne Wenger (1991) who, on the basis of their own involvement in boundary-spanning R&D explorations at the PARC laboratory of the Xerox Corporation during the 1980s, suggested that knowledge generation be explained as a particular kind of communal doing. They described such doing as a community of practice, formed through sustained 'relationships between people, activities, and the world; developing with time, and in relation to other tangential and overlapping communities of practice' (p. 98). These relationships were judged to be the source of creativity, based on continual enrolment and alignment of variety and difference, for example, the education of apprentices into a common venture or way of working. Wenger (1998, 2000) went on in his later writing

Collaborating Strangers

to more precisely name the relationship between community and economic innovation, singling out three aspects of community – mutual engagement, joint enterprise and shared repertoire – as prime sources of learning and knowing; the first encouraging shared purpose and iden-

tity, the second, joint effort, and the third, the reconcilia-

tion of difference.

The power of such situated practice is further clarified by Paul Duguid (2008), another early contributor to the thinking on communities of practice. Duguid claims that in communities of shared practice and obligation, the relationship between learning about, learning how, and learning to be, is reinforced. Knowing emerges as a useful and tangible output of engagement, the know-how of both the individual and the group is put on display. Individuals learn to become knowledgeable partners. Shared practice strengthens and enriches the knowledge chain. It also acts as a form of ethical inculcation, gathering participants behind collective aims even when personal incentives for doing so are negligible. The spur to knowing and associating in this way is largely precognitive, for in the shared space of 'automatic, unconscious, embodied simulation routines' arises a neurological resonance, which 'allows us to harmonize other people's actions with our own and to attune our own actions with those of other people, thereby establishing empathetic understanding' (Adenzato and Garbarini, 2006: 755).

Recent years have seen an explosion of practical interest in communities of practice, with many firms and organizations looking to change their knowledge management structures (see Amin and Roberts, 2008a, for details). There has been a strong push away from top-down, technology-driven, models of innovation towards more decentred models based on collaboration between employees in dispersed groupings. In the process, subtle qualifications that only certain habituated sociologies of cooperation yield effective communities of innovation (see table 2.1) have been ignored or compromised, as knowledge

Table 2.1 Characteristics of a community of practice

- Sustained mutual relationships harmonious or conflictual
- Shared ways of engaging in doing things together
- The rapid flow of information and propagation of innovation
- Absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process
- Very quick setup of a problem to be discussed
- Substantial overlap in participants' descriptions of who belongs
- Knowing what others know, what they can do, and how they can contribute to an enterprise
- Mutually defining identities
- The ability to assess the appropriateness of actions and products
- Specific tools, representations, and other artefacts
- Local lore, shared stories, inside jokes, knowing laughter
- Jargon and shortcuts to communication as well as the ease of producing new ones
- Certain styles recognized as displaying membership
- A shared discourse reflecting a certain perspective on the world

Source: Amin and Roberts (2008a: 354), compiled from Wenger (1998: 125-6)

managers reach for formulaic interpretations of the literature on communities of practice. Any original insistence on situated learning as a distinctive and hard to replicate kind of labour – for example, teaching apprentices to become masters, working with ambiguity and disagreement, sustaining particular kinds of sociality – has been forgotten (Lave, 2008). An endeavour that started by aiming to reveal the iterative, idiosyncratic and contextual nature of social learning has ended up in policy application as a lifeless caricature of social collaboration, a template for easy managerial intervention (Duguid, 2008).

The evidence itself tells a different story of learning and knowing in collaborative doing, one involving much more than human and spatial proximity and getting the mix of 'ingredients' right. It speaks of the importance of material and technological mediations, professional and reputational standards, project care and persistence, and alignment of dispersed inputs. It highlights the existence of quite distinctive ontologies of situated knowing, that vary in their patterns of social interaction, types of knowledge and innovation produced and nature of organization, as summarized in table 2.2 (and considered more fully in Amin and Roberts, 2008a). Three of the ontologies are discussed below by way of illustration.

Craft/task-based knowing

The earliest literature on communities of practice focused on task-based or craft activities, to reinstate prosaic forms of work such as photocopy repair or insurance claims processing, as well as craftwork, in the modern knowledge economy. It highlighted the centrality of community, and associated qualities such as trust, cooperation and mutual commitment, for the acquisition and application of expertise, attributing to it the power not only to bind expertise but also to harness new learning. Thus, a pioneering study by Lave and Wenger (1991), which looked at the ethnography of situated learning among Yucatec midwives, Vai and Gola tailors, naval quartermasters, meat cutters and reformed alcoholics, concluded that 'learners inevitably participate in communities of practitioners and that the mastery of knowledge and skills requires newcomers to move toward full participation in the sociocultural practices of a community' (p. 29). Inventive capability was judged to reside as much in the skills and experience of experts and overseers as in the organization of community, which allowed apprentices to learn and perform tasks, find their place in a division of labour

Table 2.2 Varieties of situated knowing

			Social interaction			
Activity	Type of knowledge	Proximity/nature of communication	Temporal aspects	Nature of social ties	Innovation	Organizational dynamic
Craft/task based (e.g., flure makers, artisans, insurance processors)	Aesthetic, kinaesthetic and embodied knowledge.	Knowledge transfer requires co-location – face-to-face communication, importance of demonstration.	Long-lived and apprenticeship-based. Developing socio-cultural institutional structures.	Interpersonal trust - mutuality through the perform-ance of shared tasks.	Customized, incremental.	Hierarchically managed. Open to new members.
Expert or high Creativity (e.g., scientists, researchers, performance artists)	Specialized and expert knowledge, including standards and codes, (including meta-codes). Exist to extend knowledge base. Temporary creative coalitions, knowledge changing rapidly.	Spatial and/or relational proximity. Communication facilitated through a combination of face-to-face and distanciated contact.	Short-lived drawing on institutional resources from a variety of expert creative fields.	Trust based on reputation and expertise, weak social ties.	High energy, radical innovation.	Group/project managed. Open to those with a reputation in the field. Management through intermediaries and boundary objects.
Virtual (e.g., software developers, online groups, open-source communities)	Codified and tacit from codified. Exploratory and exploirative.	Social interaction mediated through technology – face-to-screen. Distanciated communication. Rich web-based anthropology.	Long and short lived. Developing through fast and asynchronous interaction.	Weak social ties; reputational trust; object orientation.	Incremental and radical.	Carefully managed by community moderators or technological sequences. Open, but self-regulating.

Source: Adapted from Amin and Roberts (2008a: 357)

and develop their creative potential within a honed collective working culture. In the integration of habits of community and collaborative work lay the authorization of expertise.

In a later study of everyday innovation on an insurance claims floor, Wenger (1998) turned to the detail of learning and improvising by community, suggesting that the mutuality, shared awareness, common repertoire, collective experience, local lore and conviviality (table 2.1), that characterized the working relationships he observed, facilitated knowledge generation in various ways over a good period of time. Such qualities hastened the rapid absorption and validation of knowledge among newcomers and they served to socialize the newcomers into a functioning division of labour and working culture. In turn, they eased the response of processors to idiosyncratic and challenging claims by giving them ready access to specialist know-how and experience, and in general fostering problem-solving through cooperation. Similarly, Julian Orr's (1996) equally influential ethnography of photocopier repair and maintenance shows that the engineer at work is never the individual expert alone, but also the member of a craft community, drawing on skills and insights generated collaboratively. Each machine with its own idiosyncrasies requires engineers to improvise, apply their kinaesthetic knowledge, recall past experiences and work imaginatively with technical manuals; all aided by regular exchange - conversations, shared stories, enactments, consultations - with other engineers and clients.

Even kinaesthetic knowing, noted to be of central importance in most writing on craft culture, is considered to be a shared good in studies of communities of practice. A notable example is Cook and Yanow's (1993) study of a flute-making workshop in which artisans with specialist skills pass on the changing product to each other, assessing the work of the previous person and returning it for further work if it 'feels' not quite right. In an environment of

strong tacit sense of the quality that the final product should possess, any such decision is accepted without rancour, and in the knowledge that an adjustment can be made quickly and expertly without costly delays. There is a unity of production, customization and learning secured through the progressive tactile evaluation of the flute. Novices and master craftsmen learn to intuit, singly and as a collective, the trademark feel of the product, with the help of many arts - learnt and practised skills, the ability to feel the object with head, hand and tool, and acquired taste and judgement (Gherardi, 2009). In much the same way, Strati (1999) writes of the shared kinaesthetic knowledge of roof-tile fitters, who, needing both hands to be free, learn to develop bodily awareness through their feet, manifested in their ability to stand up while fitting tiles and to use their feet along with their hands and tools as a fine-tuned craft resource.

More could be said about the distinctions of craft knowhow, for example, the ability to draw on a practised bodily feel to make things well and imbue them with far more than use value, in the way that Richard Sennett (2008b) has done with such lucidity. However, for the purposes of comparison with other forms of situated knowing, a summary of the ecology of knowing in craft- and taskbased communities of practice can be sketched from the above (recognizing that the two are not synonymous). First, the yield of codified and technical knowledge is thoroughly dependent upon its integration - through practice - with tacit knowledge and experience, embodied and (kin)aesthetic awareness, material consciousness and taste. Second, particular practices of 'community' such as shared repertoire, interpersonal ties, and close physical and affective proximities are born out of joint work. Third, although the innovative yield tends to be of an incremental nature, it remains unique and difficult to replicate owing to its distinctive aesthetic or compositional qualities, as does the knowledge perfected through everyday application and learning. Finally, the architecture of organization, for all the collaboration and cooperation, remains centred, with a clear hierarchy of responsibility and autonomy between apprentices, experienced workers and 'masters'.

Epistemic knowing

What, then, of the dynamics of knowledge generation in situations where highly qualified professionals come together explicitly to generate innovations of a pathbreaking nature? Sometimes described as epistemic communities, these collaborations tend to be of a temporary and exploratory nature, often among groups of scientists, product developers, academics, artists, consultants, media professionals or designers. They may form within organizations (e.g., product-development teams), as offsite collaborations (e.g., academics on a common scientific project) or as networks of the 'middleground' (Grandadam, Cohendet and Simon, 2009), involving independent specialists (e.g., media experts spread across different client networks). Such forms of 'organization by project', seeking to foster radical newness, have proliferated in recent years as a spread of fashion, but also due to pressure on competitors in the knowledge-intensive economy to survive on the basis of breakthrough innovations. Whether the yield has matched expectation is an open question, with some observers arguing that project-based creativity is often hampered by alignment difficulties and the short duration of collaborations (cf. Swan, Scarbrough and Newell, 2010).

Yet there is also considerable evidence of epistemic collaborations, bringing together experts from different fields and organizations, successfully generating breakthrough innovations. The research suggests that, in sharp contrast to the commonalities of culture and know-how in craft- and task-based communities, epistemic collaborations rely on creative dissonance. Novelty comes from fusing elements not connected before, through the

combination of heteronymous capabilities in response to a common problem or objective (Lindkvist, 2005). Experts expecting to apply their acquired knowledge to new problems frequently find themselves nudged by the frontier expectations, and the high degree of ambiguity and uncertainty of the collaborative venture, towards developing new skill and antennae (Creplet et al., 2001). This seems to emerge as a common finding in case studies despite differences in setting, purpose and morphology. 'Knowing by lurching' distinguishes search on the financial trading floor (Beunza and Stark, 2004), the collaborations of scientists attracted to renowned laboratories (Knorr Cetina, 1999; Collins, 2001), the work of corporate innovation units deliberately organized for inter-disciplinarity, the media and advertising projects that rely on cognitive distance and ambiguity (Grabher, 2004), or the staged encounters in experimental art (Yanow, 2001).

Such dissonance, however, is organized. It is structured by unorthodox rules of coordination that 'tell more than we can know' (Lindkvist, 2005: 1203); an interesting twist on Polanyi's famous dictum that tacit knowledge reveals more than we can tell. The collaborations involve experts with egos, high project expectations, tight deadlines, rudimentary rules and procedures, and considerable risk and uncertainty. The absence of interpersonal ties, fixed hierarchies and rules, and a shared working culture would threaten failure were it not for other integrating conventions. One has to do with personality. The collaborators tend to be self-assured but also motivated by inquisitiveness and an ethos of professional commitment and peer respect, which facilitates collaboration, according to Creplet et al. (2001), based on their research on business consultancy. The loyalty to the co-worker found in established communities of practice is replaced by a loyalty to a common challenge. Similarly, Grabher and Ibert (2006) note that in global advertising projects propelled by the 'canonical compulsion of freshness, mobility, and flexibility' (p. 261), traits such as professional ethic, peer recognition, calculated loyalty, and project-orientation play an important integrating role.

A second convention of integration is 'explicitation'. High-energy experimental projects facing pressing deadlines abound with scribbles, drawings, formulae, data, briefings and reports, herding collaborators towards common objects of attention, and, eventually, collective disputation or agreement. The problem at hand is made decipherable and addressed through agreed techniques of representation, analysis and resolution. Scientific collaborations would fail without such explicitation as shown by a raft of writing on the history and sociology of scientific discovery. But it plays its part also in other genres of collaboration. A study by Carlile (2002), for example, shows how shared artefacts and technologies guided a design engineering team towards a working prototype, while another one by Fischer (2001) reveals how an urbanplanning project, spanning heterogeneous interests, was facilitated by an interactive electronic table that allowed people to jointly design an urban layout. Sometimes the shared concepts themselves act as bridging devices, as Kogut and Macpherson (2004) explain, to account for the global spread of Chicago School ideas on privatization enabled by the circulation of academic courses, graduates, citations, keywords and the like, in the process becoming taken-for-granted measures of worth among otherwise independent economic policy communities (see also Peck, 2010).

Third, acting as both integrating device and productive stimulus, is organized idleness. High-intensity collaborations benefit from opportunities for imaginative play, serendipity and informal interaction. They are taxing because they are short-lived, demanding, out of the ordinary and initially impersonal. Organized idleness can help to overcome these difficulties, as shown in Thompson's (2005) ethnography of a web design team, whose working culture to face challenging targets included frequent interruptions to meetings and formal agendas, many impromptu

meetings and breakouts, and bursts of activity laced with seemingly idle moments. Thompson writes of a 'consciously cultivated informality' (p. 156) involving gathering around the pool table or playing with toys and puzzles in other social spaces. The structured idleness offers opportunity for rest and time for social interaction, but it also encourages improvisation and experimentation, as some corporate knowledge managers have intuited historically by pressing for expensive alterations to building and office design to encourage informal social interaction (cf. Amin and Cohendet, 2004; Thrift, 2005b; Rankin, 2010).

Finally, epistemic communities are coordinated by interactive technological intelligence. Typically, for example, new ventures in financial trading could not progress without the intelligence and integration provided by software systems, sophisticated computing and advanced communications technologies. Such tools of the trade link together co-present and distant actors into a common action space; they make up the transactional and knowledge landscape, and they enable decision-making and interpretation. They are responsible for generating the high-volume and high-speed transactional environment that demands fast thinking and interpretation, but they are also the means by which expert traders become acting subjects in a turbulent environment. New terms in the anthropology of finance, such as 'money's eyes' (Pryke, 2010), 'face-to-screen world' (Knorr Cetina and Bruegger, 2002b), 'distributed calculative capacity' (Beunza and Stark, 2004), seek precisely to capture this agency. They reveal the computer screen itself as a site of situated practice, linking traders with distant others, information sets, formulae that help interpretation, and software tools that facilitate visualization and judgement, and they capture the crucial significance of office layout, Bloomberg screens, and other tools of interaction and coordination without which no innovation or strategic decision would be possible.

If the discussion of the ecology of epistemic projects has been one sided, it is due to the crucial role of coordination

devices in collaborative environments that lack a strong cultural commons. The coalitions are short-lived, the individuals self-centred, the work divided, the identities formed elsewhere and the loyalties object-oriented. Here, strangers become collaborators but not friends, co-generators of often quite extraordinary innovations, but without interpersonal ties. The tools of integration are key intermediaries: organized idleness, peer recognition, professional ethos, project interest and interactive technological intelligence. Epistemic coalitions, arguably the pulse of the knowledge economy, integrate the knowledgeable stranger in ways that are wholly neglected in communitarian writing on social cohesion.

Online knowing

The same can be said about how online communities are generally evaluated. It is often assumed that online transactions gather inputs such as information, contacts and sometimes affinities that feed into a knowledge process located offline. The online environment is not seen as a continuum of the latter or as a knowledge environment in its own right. This perception is slowly changing, partly as a result of growing research on Internet communities, some of which are recognized to be knowledge communities which are markedly different from those which depend on social familiarity and direct physical contact (Ellis, Oldridge and Vasconcelos, 2004; Johnson, 2001). This research presses for consideration of online knowledge generation as the product of a particular kind of transactional ecology, generative in its own right as a textured environment with vitality (Venn, 2010; Morley, 2006).

Clearly, not all online communities are the same. At one end of the spectrum exist large, loosely structured chat rooms, and at the other end small purposeful groups that are tightly managed. In between lie newsrooms that allow material to be read and posted but involve little interaction, online databases that permit some degree of user manipulation, clubs and game sites that involve intense interaction and emotional attachment, and online projects designed explicitly to act as learning environments. They vary in their technical, social and institutional specification, and also in their participation norms, genres of communication, conventions of interaction, and protocols of organization and management. These differences have a bearing on the knowledge-generating qualities of online communities. In many instances, conversations circulate rapidly among participants who barely know each other and who come and go at high frequency, propped up by fairly rudimentary design and data-processing facilities, and minimal attempts to control, channel and structure the conversations. The scope they offer for collective

learning and knowledge generation is slight.

This is not the case with online collaborations established explicitly to broker new knowledge. Some, especially those involving participants with limited IT skills collaborating in a basic software environment, manage to sustain a surprisingly productive sociality. One example is the online site launched by professionals and lay interest groups facing similar problems that are poorly understood locally. Typically, these involve teachers or health professionals interested in improving practice respectively in the classroom or in medical practice, or patients and carers keen to learn about, and influence, health policy in specific areas of illness. The participants - pressed by the common and sometimes urgent problem - learn experimentally and iteratively in an initially 'cold' medium to forge relational affinities supporting collective learning. This is illustrated by Josefsson's (2005) study of online patient groups in Sweden, which, on occasion, have succeeded in changing medical practice by offering proposals based on the insight of carers and patients concerning symptoms, medication, coping strategies and palliative care. It is striking in Josefsson's account how the sites, mediated by an experienced web manager and a sensitive 'netiquette', succeed in sustaining a sociality characterized by humour, empathy and tact – one that opens the door to new solutions through shared discussion of sometimes highly personal experience.

There are similarities between such online and epistemic collaborations. Studies of the online communities show that factors such as the degree of participant commitment towards the endeavour, the clarity of purpose and rules of engagement, and the qualities of leadership and intermediation, are just as important for collective knowledge production and alignment (see Amin and Roberts, 2008a, for further detail). Here too, the means of enabling effective and affective communication among relative strangers with a common quest is deemed of central importance, unsurprisingly, given the absences of physical engagement. This is confirmed by Kling and Courtright's (2003) study of an interactive website in Indiana, established to find new ways of teaching science and maths. Although project developers expected a 'community of practice' to form once the technology for virtual communication was in place, success in practice was the result of subgroups being formed, aided by active and capable e-forum managers, and the development of interactive tools such as questionand-answer boxes and prompts to encourage reflection and thinking-aloud on screen.

But what of socially 'thin' online collaborations that manage to yield significant innovations? Open-source software development is an interesting example, usually attracting a large pool of technical experts initially, before settling into an exchange between the most committed participants. Typically, the ventures involve source code being released freely on the Internet, picked up by experts motivated by the challenge to solve a difficult programming problem and a desire to be recognized within a highly specialized global community. On occasion, out of a mountain of short exchanges from all quarters that mix code and half-completed sentences that disappear off screen, emerges a new software breakthrough. With all the

transacting done face-to-screen, and, until recently, without the benefit of webcam or sophisticated data storage and visualization software, successful projects seemed to be those guided by shared notions of validity, sustained contribution from a core group and active coordination, usually by the project originator who directs the process of discussion and progression (Edwards, 2001; see also Mateos-Garcia and Steinmueller, 2008).

It also seems that the affective dimension is not rudimentary despite the absence of interpersonal proximities. A study of three online project collaborations, for example, shows that people participate not only because of tangible expectations such as securing the answer to a technical problem or the enhancement of their reputation, but also for intangible reasons such as the desire to meet similar minds, learn from others, work with others on a common problem and respond to a professional call (McLure-Wasko and Faraj, 2000). Such reasons explain why, even in ventures that attract free-riders attracted by the lure of a financial reward, there emerges a readiness to share valuable knowledge and to cooperate with others (as Hall and Graham, 2004, show in their study of enthusiasts attempting to crack the ten-code 'CipherChallenge' presented at the end of Simon Singh's The Code Book, offering a £10,000 reward). But there is more at work. The sociality of online collaboration should not be measured against an offline standard of creativity, such as trust, altruism and reciprocity. The online habitat itself is socially generative, a lived ecology structuring thought, practice, subjectivity and affect on its own terms, based on the negotiation of transactions - and other beings - through screen, software and keyboard.

Online habitats possess software systems that allow expert groups, trying to negotiate their way through complex problems, large datasets and multiple participants, the facilities of clear negotiation pathways, managed access to stored data, operability across different time spans and 'rooms' for collective reflection. Innovations

Conclusion: Knowing Strangers

The company of strangers is natural to economic creativity, a bedrock of knowledge capitalism. It is salutary to remember this at a time of suspicion or circumspection regarding the economic desirability of the stranger. With the return of economic nationalism to contest a stagnant global economy, the stranger seems required only as an invisible entity: offshore as a cheap and disposable labourer or silent consumer, and onshore as a spending but passing visitor or as a stopgap for missing skills. Every presence has to be justified, every individual accounted for and every necessity qualified as an exception. There seems little room for any relation with the stranger other than one that is exploitative and utilitarian. Yet the preceding discussion has shown that relations among strangers are natural and necessary for collective innovation; the source of new routines, processes, products and scripts in situated practice that promise real economic gain.

The question that follows, then, concerns the meaning of the phrase 'relations among strangers'. Certainly, evidence can be found to show that loyalty, trust and reciprocity are the lubricants of relationally generated knowledge, allowing strangers to draw on associational resources to act more knowingly and more assuredly (Storper, 2008). Certain kinds of collaborative work, as we have seen, rely on these properties. However, they are neither given nor the product of co-placement, but acquisitions of practice, with all its qualifications. They are studied, provisional and variable, regulated by the rhythms and routines of engagement demanded by common address and collective resolve. They are also shaped by the situation itself, and its specific modes of human enrolment. And included in these modes, as we have seen, are many material, organizational and technical devices that align and sustain the division of labour and collaborative effort. Trust, and other affiliated affects, therefore, cannot be

such as hypermedia, interactive digital libraries, electronic memories and pop-up technologies can now support 'emergent, dynamic, exploratory interpretation' (Marshall, Shipman and McCall, 1995: 5). They help to calibrate distributed expertise, take on some of the active thinking and analysis, present a fast-moving, variegated and hidden virtual world in comprehensible ways, and become part of the human act of apprehending and interpreting. They are at once an aid to human knowing (in presenting complexities in such a way that experts can work intelligibly), part of the landscape itself through which experts must work in order to find a solution, and a second-nature prosthetic for individuals skilled at working in a virtual environment (one that taps into a honed neurology of visualization and touch). There is a tale of cognitive adaptation and ecological inhabitation to be told in explaining the knowledge practices of online experts.

The evidence concerning online creativity shows that virtual worlds can develop a social texture rich enough to support knowing by interacting with others. A commons can emerge, along with meaningful exchanges, reciprocities and affective obligations, under certain conditions of joint-purposefulness and organization. But the socialities - and the related knowledge practices and innovations are quite different from that to be found in epistemic or craft-based collaborations. Once these collaborations are seen as the yield of - and not prior to - a distinctive ecology of practice made up of many types of actant and many modes of engagement, then the temptation to reduce collective creativity to particular forms of interpersonal behaviour recedes. Instead, new possibilities open up, such as that of humans learning to think and act in a virtual ecology with new neurological and sensory awareness and diverse material and technological intermediaries and extensions, rendering the challenge of working with distant others less a challenge of recognition than of aligning, reconciling and valorizing the many circulating ciphers and opinions (Caliscan and Callon, 2009).

invoked as 'as an undifferentiated explanation of coordination that black-boxes maintenance operations and socio-technical devices', as Caliscan and Callon (2010: 21) caution. Indeed, these affects might be seen as the result of the different ways in which strangers are brought together in material practice.

By inverting the causality between learning to labour collaboratively and affective propensities, and by revealing the plural spaces and entities of human formation and attachment, the research on situated knowing stretches the meaning of 'relations among strangers' to its limit. It introduces the possibility - and potentiality - of togetherness without relational ties, of productive collective venture without strangers having to develop close affinities with each other. In high-energy epistemic collaborations and problem-oriented online explorations, but also in the craft workshop, there are other affinities and compulsions at work, from professional ethics and project deadlines to problem-orientation and material care. Here, strangers fall in behind joint endeavour and common problems, without obligation to recognize each other, disclose themselves or give up their difference and autonomy. Knowing in collaborative doing is a challenge of enrolment and alignment of the heterogeneous - human and non-human. In such doing, humans are put in place, made part of a wider unfolding, and, as a result, brought into contact with others without the necessity of recognition or reconciliation. There are so many ways in which a material culture of togetherness can be fabricated.

These observations have important implications for the political economy of integration of the stranger. Most obviously, they cast doubt on the sanity of policies to keep the stranger out or oppressed on economic grounds. This is not an argument for open migration and free handouts, for this will bring its own labour market and welfare constraints, adding pressure on settled majorities and minorities, intensifying aversion towards the stranger, and forcing newcomers into the worst kinds of jobs in the formal and

informal economy. Instead, it is an argument to consider the value of dissonance, discrepancy and the unfamiliar for the knowledge economy (Callon, Mèadel and Rabeharisoa, 2002; Stark, 2009). Peripheral and plural knowledge, differentiated skills, latent capabilities, combinations of lay and expert know-how, with the surprises of the outside and of the unexpected, are the key ingredients of innovation. The stranger as one potential bearer of these possibilities is necessary for economic renewal.

However, in the economy of learning and knowing in doing, the stranger does not arrive pre-formed, nor contribute in isolation as an economic agent, but acquires potentiality through situated collaborative practice. Indeed, this is the case for all participants, as the varied examples of collaborative knowing in this chapter have shown, including old hands, known faces and distant or peripheral participants, for it is in the act of engagement that creativity is stimulated. This is why the language of attribute or measure - so much trust, social capital or cohesion, or so much supply of skills and people for the knowledge economy - makes little sense. While it may bolster new fictions of the economic cutting edge that possess considerable powers of persuasion - selling knowledge capitalism as being-in-togetherness (Thrift, 2008) or future organization as 'heterarchical' rather than hierarchical (Stark, 2009) - it does not get close to the irregular beat of practice itself. In situated knowing, success is the product of putting things together, inventing a commons, harnessing all manner of human and non-human capability, cultivating care for the task in hand, and working at the problem over and again. As Mitchell (2008: 1118) observes, 'successful calculative devices are ... those that make it possible to conceive of a network, or market, or national economy, or whatever is being designed, and assist in the practical work of bringing it into being'.

The integration of the stranger lies in the act of collective doing, a timely reminder of the value of learning to labour together, and with craft integrity. To approach the question of social cohesion from the perspective of situated practice is to care less about who the strangers are and what they come with, than about what the collaborating participants – all strangers at the start – can achieve. It is to focus attention on the efficacy of the tools of integration, on the relational ecology itself. It is to be suspicious of the sociology of human selection, if anything for the doubt of not knowing what constitutes human potentiality:

The object of study for sociology is not human beings but being human. That simple rephrasing immediately highlights the socio-technologies that are apart from our brains and bodies but are a part of our humanity. For the economic sociology of valuation there is no calculation apart from calculating devices, no judgements apart from judgment devices. Yes, we calculate, we judge, we perform. We the assemblages of humans and our non-humans perform. (Stark, 2010: 18)

If situated practice complicates the very meaning of the two letters 'we', with what confidence can the stranger be named for this or that economic outcome? The work on cultures of innovation shows that there is nothing to be gained from a politics of economic judgement that preys on the exceptionalism of the stranger.

- 3 -Strangers in the City

Introduction

Not all forms of situated practice bring strangers into purposeful contact with each other, capable of affective transformation through engagement. The social dynamic of working, living, playing or studying together is quite different from that of strangers rubbing along (or not) in public space or sharing a cultural commons. Co-presence and collaboration are two very different things, and the meaning and affective result of situated practice in each of these sites of 'togetherness' is not the same. But this is not to say that the negotiations of co-occupancy are less significant in regulating proximities and distances between strangers, or between majorities and minorities, than those of collaboration. They are just as influential, only different, as this chapter shows, by turning to the ethnography of urban public space. There exists a rich history of claim about the behavioural and affective resonances of strangers mingling in the open spaces of a city, finding in it the pleasures or abuses of anonymity, the making of the blasé, numbed, frenzied, alienated or civic subject, the thrills or fears of crowd membership, and feelings of indifference or aversion