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The socio-political importance of blackouts in South Africa

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Abstract

The academic literature on blackouts often negates the symbolic importance of these socio-technical phenomena. This essay aims to address this theoretical gap by illustrating the socio-political importance of blackouts in South Africa. Two lines of argument are presented. Firstly, the article seeks to flip N. Thrift's notion of 'technological unconsciousness' on its head to show how continuing blackouts have forced people to have a more proactive relationship with the grid. Secondly, it illustrates how the technical phenomena of blackouts have permeated the broader South African experience – becoming a conduit for broader social-political angst. These two lines of inquiry are discussed in relation to post-apartheid neoliberal economic policy in South Africa. The main aim of this article is to illustrate the importance of studying blackouts not purely as an example of infrastructure failure but rather complex socio-technical phenomena that deserve further research; in this way, this essay hopes to provide a theoretical space for further research. The essay concludes that with electrical infrastructure ageing in the global north and with large parts of the global south regularly experiencing intermittent supplies of electricity, the wider socio-political importance of blackout should receive greater cross-disciplinary attention.

Keywords: blackouts, urban geography, South Africa, neoliberalism

1. Introduction

There is a growing body of literature within the social sciences on electrification and its social, political and economic implications (Strauss et al. 2013; Winther, Wilhite, 2015; Szeman et al. 2017). Little attention, however, has been given to the phenomena of power outages or blackouts. The literature that does exist tends to focus on accidental blackouts (due to infrastructure failure) and primarily on the urban North, especially the mega-cities of California, New York, and London (Yuill 2004; Nye 2010; Luke 2010). Little academic consideration has been given to blackouts in the global South (both unforeseen and planned), which is somewhat surprising considering that, for many people living in the global South's urban areas, blackouts have become a part of daily life. Using the case study of South Africa, this paper argue that the phenomena of blackouts have come to distill larger socio-political narratives, and thus deserve wider academic attention. As the anthropologist Clifford Geertz famously said: 'small facts speak to large issues' (Geertz 1973: 23). That is not to say that blackouts are 'small facts' in the social landscape of South Africa, quite the opposite. It is more that blackouts act as a conduit for a broader nexus of social actors and histories reflected in a phenomenon that is as much social as it is technical. The effects of these blackouts have permeated the South African experience, not just reflecting the economic, political, and social condition in South Africa but becoming ingrained in the very culture itself.

With this in mind, this paper argue that the occurrence of blackouts in South Africa, and more broadly the energy crisis itself, has revealed a deep disparity between those who have become accustomed to a dependable flow of electricity and those who never had reliable access in the first place. This disparity has led to resistance from poorer areas, especially townships, as their relationship with the grid has, to turn N. Thrift's (2004) idea of 'technologically unconscious' on its head, become more 'technologically conscious' than the more affluent areas who enjoy a more reliable access to electricity. Secondly, it will be argued that because of the South African government's unique relationship with the public utility company Eskom, blackouts have become a focal point for anger and frustration with the African National Congress (ANC). In the majority of circumstances, this anger has manifested itself not physically (riots for example), but instead in a more subversive

manner. Blackout satire has become an important part of everyday life in South Africa, acting as a means of venting frustration with the country's wider socio-political landscape. Although this satire takes many forms, much of it is based around the motif of 'light and dark'. This 'conceptual metaphor' (Lakoff, Johnson, 1980) reflects not only South Africa's complex race and class dimensions, but also the broad frustrations with the stuttering, intermittent, progress of the country post-apartheid. In this way then, blackouts themselves can be seen as a grand conceptual metaphor of the South African experience.

2. Electricity in South Africa: a brief overview

Historically, South Africa's relationship with electricity has been both long and complex. Indeed Kimberley, a mining city in the Northern Cape, was electrified in 1882, five years before Sebastian de Ferranti built his AC power station in London. Today South Africa produces more electricity than any other African nation, some 34 000 MW per year. In the mid-1990s B. Fine and Z. Rustomjee (1996: 8) stated that, 'on a global scale, the South African economy is uniquely dependent on electricity and is uniquely electricity-intensive'. This statement is perhaps truer today than ever. When B. Fine and Z. Rustomjee wrote their book, South Africa's electricity reserve margin was forty percent, whereas today it is, what Trollip et al. (2014: 9) laconically calls, a 'chronic zero'. The South African government has tended to frame the plummeting of the electricity reserve margin as a result of 'robust economic growth and the associated demand for electricity' (South African Gov, 2008: 4). There is indeed a unidirectional causal flow between energy consumption and economic growth in South Africa (Lin 2014: 846). In the 1980s, the average consumption per capita was 3644.44 kWh and the GDP was 80.547 billion USD, in 2009 consumption was over 5039.7 kWh and GDP was 510.937 billion USD (Odhiambo 2009: 636). These figures, however, conceal deep-seated inequalities within the country. Although South Africa has the second largest economy in Africa (being recently overtaken by Nigeria), its unemployment rates range from 25% to 35% (Keeton 2014: 29). Indeed, eight million South African's do not have access to electricity, with many more not receiving a reliable source of electricity (World Energy Outlook 2016). In fact, beginning in late 2001 in an effort to increase capacity, Eskom began wide-scale disconnections of

recently connected municipalities that owed the most money in backdated bills. These municipalities were almost always the poorer townships.

In many respects, since the fall of apartheid, South Africa has been a victim of its own economic success. With a booming economy, and a government embarking on ambitious wide-scale electrification projects to connect poorer communities to the grid, South Africa appeared to be rushing headfirst towards economic and social success. To international onlookers, it appeared as a triumph of neoliberal economic policy, as D. Harvey (2003: 159) states, international financial bodies 'treated post-apartheid South Africa as a showcase for the greater efficiencies that could be achieved through the privatization and liberalization of the markets'. However, the creation of these 'efficiencies' through the liberalization of the South African economy came at the expense of foresight, as South Africa continually failed to both increase its power production and maintain the infrastructure it had. As one South African put it, since the fall of apartheid, 'South Africa has been trying to fix its engine while driving at a hundred miles per hour' (see BBC 2015).

The economic growth post-apartheid was largely due to the influx of international companies (especially mining companies) who found South Africa's newly liberalised markets, remarkably low electricity prices and bountiful rare earth mineral resources highly attractive. Until recent hikes, South Africa had maintained some of the words cheapest electricity supplies, partly because of its incredible rich coal reserves, but also because Eskom has been structured by the state in order to 'provide cheap power for mining transport and manufacture' (Christie 1984: 1).

In 2006, this combination of cheap and plentiful electricity, a burgeoning mining sector, increased consumer connection, and the lack of new infrastructure resulted in demand outstripping supply and serious blackouts across the Western Cape (Trollip et al. 2007). To prevent another wide-scale blackout, loadshedding, a planned rolling blackout across different regions at different times, was implemented throughout the country. In 2008, the system was brought to the brink when several power plants went down due to infrastructure failure. A lack of new investment meant that Eskom had to restart older power plants to temporarily relieve some of the pressure on supply (Styan 2011). However, in 2014, due to the collapsing of a coal silo, and insufficient diesel supplies, two power plants (including

the Majuba power plant – Eskom's second largest) went down, and loadshedding was reintroduced. Thus, be it as a result of failing infrastructure, loadshedding or disconnections from the grid, since the early 2000s, blackouts have been a regular part of South Africans' daily lives.

It is important to note that South Africa is by no means unique in its relationship between neoliberal economic policy and infrastructure failure. There is already a good amount of research on the neoliberalism and infrastructure neglect in both the Global North and South (McDonald 2012; Matthewman, Byrd, 2014; Meek 2014; Salamanca 2014; Nelson 2017). As will be shown, blackouts present a particularly rich avenue for analyzing this relationship, as the effects of such economic policies manifest themselves in stark relief – interrupting daily life and acting as a catalyst for resistance against the economic and political circumstances that lead to this most visible form of infrastructure failure. Be they routinised or unexpected, blackouts can be seen as a manifestation of these complex socio-economic histories.

3. Blackouts: from disparity of experience to resistance

S. Matthewman and H. Byrd (2013: 1) state that the impact of blackouts 'includes measurable economic losses and less easily quantified social costs'. In South Africa blackouts have indeed had a severe effect on the country's economy. In the second quarter of 2015 South Africa's economy contracted by 1.3%. The economist P. Montalto (cited in du Preez 2015) said, it was 'like it had lost a major industry... This is the impact of Eskom loadshedding'. In the same year, it was reported that blackouts were costing the South African economy up to 6.8 billion USD (80.1 billion ZAR) a month (Govender 2015). In 2008 when South Africa lost three power plants, five of the country's largest rare earth mineral mines were forced to shut down extraction, not only severely denting South Africa's industrial output but also sending the price of platinum and gold up by five percent on the world market (See Banerjee et al. 2008).

S. Matthewman and H. Byrd's maxim that social costs are less quantifiable vis-a-vis economic costs, also holds true in the case of South Africa. Despite this, the blackouts, and more broadly the energy crisis itself, has undoubtedly revealed

a profound disparity between those who have become accustomed to a dependable flow of electricity and those who never had reliable access in the first place. In South Africa, this disjuncture between experience and what was deemed a 'crisis' appeared down class and race lines. As D. McDonald (2011: 69) states:

> 'Black South Africans had experienced electricity crises for most of their lives... having been left off the power grid entirely or having been provided with services of such low quality, or at such high prices, as to effectively make electricity an inaccessible luxury good'.

The crisis not only exposed the reliance of South Africa economy on middle-class suburbia and the commercial mining sector, but it also revealed the fractious race and class divides that still simmer beneath the country's surface. Despite the fact that many poor black South Africans had never had access to reliable electricity (or had been disconnected from the grid entirely by Eskom), it was only in 2006, when rolling blackouts, as a result of loadshedding, started to affect areas that would typically receive relatively secure electricity (the white urban areas and commercial districts), that a crisis was declared (Weston 2014: 142). As D. Weston (2014: 142) states, the fact 'that this "load-shedding" constituted a crisis is something of a metaphor for the class-based inequality in South Africa'. Therefore the construction of what was deemed to be 'normal' electricity access, and consequently what was considered a national 'crisis', was contingent on a combination of ethnicity and socio-economic conditions of those affected. Reliable access to electricity had come to be viewed as a basic public service that had come to be taken for granted by the affluent urban areas. These areas lacked what F. Trentmann (2009: 74) calls 'elasticity', in their experience with both electricity, and the electrical infrastructure that supplied it, as blackouts were not considered the norm. As S. Graham states 'infrastructure reflects and reproduces urban inequality. Interruption and crisis can lay bare this inequality' (2010: 144).

This disparity in energy experiences in South Africa is also found in the maintenance of electric infrastructure afforded to the poorer townships and the rich suburban areas. This infrastructure (pylons, overhead cables etc.) not only affects

how communities cope with the planned rolling blackouts but also the frequency of unplanned blackouts due to infrastructure failure. According to a 2003 survey carried out by South Africa's National Energy Regulator, forty-nine percent of South Africa's municipalities (almost all being poor) 'do not have contingency measures to deal with power cuts' and continually fail to have routine infrastructure investigations (McDonald 2012: 234). Contrast this with the suburban areas where there is significant economic and political pressure to maintain a constant flow of electricity, the two experience appear worlds apart (McDonald 2012). As P. Bond et al. (2009: 67) state, 'There is perhaps no better way to interpret power relations in contemporary South Africa than by examining who has had access to energy in the past, who is getting it now...and who will have it in the future'.

4. Technological consciousness

In South Africa blackouts, due to infrastructure failure as well the purposeful disconnection of large parts of the townships from the grid, have changed the relationship between electrical infrastructure and those living in these poorer urban areas. N. Thrift (2004: 175) states that the better electrical infrastructure works, the less obvious it becomes: 'environments of which we are a part gradually come to be accepted as the only way to be because, each and every day, they show up more or less as expected'. As G. Bowker (2002: 3) states:

> 'The normally invisible quality of working infrastructure becomes visible when it breaks: the server is down, the bridge washes out, there is a power blackout. Even when there are backup mechanisms and procedures, their existence highlights the now visible infrastructure'.

This is why in richer urban areas electrical infrastructure is visible only when the power fails, as its visibility, or invisibility in this case, is contingent on its ability to provide a reliable service. Conversely, in South Africa, those who suffer the most from blackouts have become engaged in a more 'proactive' relationship with the grid than those communities that have a more reliable source of power. Feeling failed by the government and targeted by Eskom, poor municipalities have started taking the

matter into their own hands. From late 2001 Soweto, a historically poor urban area bordering Johannesburg's mining belt in the south, has been suffering from blackouts due to Eskom disconnecting the supplies of up to 20,000 households each month (Bond 2004: 21). Out of this policy rose a 'particularly intense civil society contestation' and ultimately a movement of resistance, most notably the Soweto Electricity Crisis Committee (SECC), who formed to combat the blackouts (Gills, Gray, 2013: 49). They subsequently launched an operation to combat the blackouts resulting from both disconnection and poor infrastructure (and later loadshedding) in Soweto. An article in the *Washington Post* (Jeter 2002) documented the SECC reconnecting an elderly Soweto resident

> 'When she could no longer bear the darkness... Anges Mohapi cursed the powers that had cut off her electricity. Then she summoned a neighbour service to illegally reconnect it. Soon, the bootleg technicians from the Soweto Electricity Crisis Committee arrived...they used pliers, a penknife...to return light to the dusty, treeless corner'.

Thus, what N. Thrift (2004: 212-214) calls 'the technological unconscious' is instead more of a *technological conscious* in the poorer areas of South Africa, as they seek to have agency over their electrical futures. Eskom's policy to target loadshedding on those municipalities who owe the most money in backdated bills has only increased resistance, as it is almost always these poor townships that are hit first (see Marie 2015; BBC 2015). This is partly because many of those who live in the poorer townships cannot afford the recent price hikes and secondly because of the growing numbers who have begun gaining illegal access to the grid. It is estimated that in Soweto, more than half of the residents now get their power for free, owing Eskom approximately five billion Rand (Potelwa 2014). This is perhaps why the SECC motto is 'Down With Capitalism' (see BBC 2015). Indeed, in 2010, Eskom launched 'Operation Khanysia' ('switch on') to crackdown on illegal access to the grid and to recuperate lost profit. Through the harnessing of this more alert technological consciousness that has developed, Eskom urges residents to report

signs of tampering, such as 'incorrect wiring' and 'wires running across floors, pathways or streets' (Eskom).

The rise of the SECC, and the steps they have taken to reconnect the poorer township communities represents a form of resistance to South Africa's policy of energy privatisation. Indeed it is against the neoliberal economic policies of post-Apartheid South Africa that the SECC cultivated their ideology and identity. As A. Egan and A. Wafer (2004: 3) state, 'The SECC frames its collective action, at least in part, around an ideology of resistance to neoliberal economic globalisation and commitment to a broadly defined socialism.' The rise of SECC could thus be understood as yet another locally rooted resistance to a global economic and socio-political trend. Indeed in 2003, Trevor Ngwane, the then leader of the SECC, attended the World Social Forum where he stated the need for global solidarity between such forms of resistance to combat global neoliberalism (Bond 2003; Egan, Wafer, 2004).

5. Governmental failure and blackout satire

'The politics underpinning urban infrastructural transformation are rarely more evident or visible than in times of crisis or rupture'

C. McFarlane, J. Rutherford (2008: 368)

Beyond the more localised resistant groups like the SECC, to many South Africans the continued rolling blackouts have become symbolic of years of political mismanagement. As T. Ngwane (2014) states, 'from the point of view of many ordinary people, Eskom, and the government have failed the people'. Historically, South Africa has had a unique socio-politically relationship with energy, as 'control over the... electricity system is unusually concentrated in just a few actors' (Lins, Dwyer, 2015: 417). South Africa has a single national electricity grid with a single state-owned producer generating the majority of energy. Consequently, many South Africans see the continued need for rolling blackouts as a failure of both Eskom and the ANC. In 1998, the government produced a white paper on the Energy Policy of the Republic of South Africa. It stated: 'Although growth in electricity demand is only projected to exceed generation capacity by approximately the year 2007, long capacity-expansion lead times require strategies to be in place in the mid-term, to

meet the needs of the growing economy' (cited in Preuss 2016). However, in 1999, the year after the white paper was published, the South African government decided to try to privatise Eskom. Not wanting to spend the money on upgrading its facilities in the hope the private sector would inject the necessary capital, the government scrapped plans to build more power stations and increase capacity. Ironically in 2007, the year the white paper warned demand would outstrip capacity, the then President Thabo Mbeki stated that it was a lack of foresight on the government's behalf that had cost the South African people (see Myburgh 2009).

Many people in South Africa believe that these mistaken privatisation plans resulted in the electricity crisis and the necessity of loadshedding (Preuss 2016). Therefore, blackouts, and specifically the continued need for loadshedding, have become a focal point of anger towards the ANC and its lack of foresight. This anger is only heightened when governmental officials appear to avoid the worst effects of the blackouts. In a 2014 article in the *International Business Times*, Everett stated that 'unlike hospitals, airports, mines...it seems that the President's official residences [are]...luckily, insulated from power cuts themselves due to "technical reasons". Therefore, he is in the fortuitous position of not having to share the majority's pain'. As S. Graham states 'there is a high degree of variability in the experience of interruption within...cities in the Global South.' Figures 1 and 2 sum up how the rolling blackouts have become a focal point of frustrations with Eskom and the ANC. Figure 1 depicts the ironic nature of President Zuma's 2015 State of the Nation Address (SONA) just after Eskom announced stage three of its loadshedding programme when, due to a lack of diesel and the collapsing of a coal silo, two power plants had to be shut down. Figure 2 shows the three Eskom CEOs appointed by the ANC since 2014, all of who have failed to increase electricity capacity and prevent continued rolling blackouts.

Figure 1. Eskom keeps the lights on for Sona – but will anyone notice?

Source: Ngubane (2015)

Figure 2. Joke is on Eskom boss Brian Molefe after funder dumps Eskom

Source: Shapiro (2015)

Since blackouts became routine, satire like this, normally always at the expense of Eskom and the ANC, has become part of the South African culture and an important way of venting frustrations. Often imbued with racial and class tension, this satire is found in newspapers, magazines, on social media and as graffiti. On a satirical blog about Eskom called 'Shedding Light,' one contributor parodies Eskom's motto 'Eskom, together building the powerbase for sustainable growth and

development' writing, 'Eskom, it's broken, welcome to our world, pitch black and powerless' (cited in SAPeople 2014). Underlining the racial tensions that still exist post-apartheid, another stated, 'I want to thank Eskom...now everybody here is black when the lights go off.' Eskom itself has been amalgamated with the Afrikaans phrase 'Eish', used as an expression of disbelief, to form a verb, with people saying that they have been 'Eishkom'd' when their lights go out. On another site a contributor produced a parody of Simon and Garfunkel's *Sound of Silence* called *Hours of Darkness* (South Africa Today 2015).

This conceptualisation of the blackouts through the recurring motif of 'light and dark' is not only imbued with South Africa's complex socio-political past but also frustrations with a perceived stuttering of progress since apartheid. This is an example of what the linguistic anthropologists G. Lakoff and M. Johnson call 'conceptual metaphors', which produces 'a dynamic pattern that [...] connects up a [...] range of different experiences that manifest the same recurring structure' (cited in Krois, 2007: 63). The juxtaposition of light and dark not only brings to bare the racial tensions and class inequality that still simmer beneath the countries surface, but also broad the frustrations with the ANC and Eskom that progress is not being made (figures 1 and 2 exemplify this). Here the blackouts, and the darkness they bring, signify a lack of power in both the real sense of having no electricity and the socio-political sense of feeling powerless to change the situation itself.

The term loadshedding has even entered the South African vernacular as a nebulous word symbolising frustration and anxiety over the country's future. In their book, *Load-shedding: Writing on and Over the Edge of South Africa*, a collection of journalists experiences covering South Africa, L. Nuttall and S. McGregor (2015: xxi) state that 'In choosing loadshedding as the title for this book, we wanted to signal not just the actual conditions of darkness that it refers to but the term's suggestive symbolic and psychic dimensions.' A similar phenomenon has occurred in Ghana where rolling blackouts are called 'Dumsor' meaning 'light on and off' (dum means off; sor means on in the local Twi language) – (Ohene 2015). The term is now used as to expression of frustration at the Ghanaian government and anxiety over the future of the country (Tornyi 2016).

In many ways then the blackouts represents the perfect 'grand conceptual metaphor' (Schane 2006: 73) of the South African experience post-apartheid. The intermittent nature of electric power perfectly encapsulates a country that has stuttered both economically and socially since apartheid, as moments of light and hope are all too often curtailed by moments of darkness and frustration.

6. Conclusion and further study

As infrastructure ages, as populations grow and finite fuel sources diminish, blackouts are likely to become more frequent in both hemispheres. The fact they occur in a myriad of countries (Pakistan, Ghana, Egypt, etc.) each with their own socio-political histories, provides an unparalleled opportunity for cross-cultural study. There is opportunity here to identify commonalities between cause and effect, especially as neoliberal economic policy, in one form or another, often lies behind these events. It is also important to ask the question of too what extent do the reactions to blackouts constitute a form of resistance (be it physical or otherwise) to these policies? Ghanaian rolling blackouts, for example, have ultimately been caused by a failure to invest in energy infrastructure from both the private and public sphere, and there are now calls for Electricity Company of Ghana (Ghana's state owned electricity company) to be privatized (Dzawu 2015). Like the South African case, there has been a strong civil society contestation to these blackouts, both physical (2015 marches and protests) and through less obvious socio-cultural manifestations (the aforementioned use of the word Dumsor). Yet, as with the case of South Africa, blackouts in Ghana remain under-researched.

Ultimately, the more the world becomes electrified, the more important it is that blackouts receive greater cross-disciplinary academic attention. Indeed, to fully understand the phenomena of blackouts a cross-disciplinary approach is particularly vital. To situate such studies in discrete academic disciplines reduces the theoretical and empirical tool kit needed to untangle the complex histories that lead to such events and to comprehend the socio-political and socio-cultural outcomes of electricity failure. Blackouts are not a-political, their cause, and their effect is as much a social phenomena as it is a technical one; the disconnections in Soweto and the rise of the SECC exemplify this perfectly. Thus, how blackouts are contextualised, and

what actions they catalyse tell us much about the society in which they are embedded. The study of the symbolic, or emblematic, nature of blackouts needs to be at the centre of further research. In the end, we must remember that the transition to electrification is not linear, or necessarily progressive in nature. As the South African case shows, electrical power, as is the case with all forms of power, can disappear as quickly as it is established.

7. References

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