Forecasting the Underlying Psychological Forces to Political Violence through Big Data Symbol Mining

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This paper provides a work-in-progress outline of an ongoing project to develop a quantitative assessment methodology to psychological changes in the collective mindset that opens up for radicalisation with a propensity towards engaging in political violence. The complete study is due for completion in late 2016 and will be published in book form.

With the recent years' eruption of terrorism in Europe, the question '*how does radicalisation come about?*' has yet again come to the forefront. The mainstream academia root cause analysis to radicalisation and terrorism points towards structural factors; including alienation from society at large, adverse socioeconomic conditions, perceived discrimination and stigmatisation, however a closer look at these factors provides little in terms of forecasting capabilities. Such conditions seem to exist in virtually every society and at all times with some group whether on ethnic, religious, cultural or political grounds being perceived, rightly or wrongly, unfairly disadvantaged with a rationale to radicalise. And sometimes radicalisation occurs among groups that not at all can be pinned to any of the assumed structural factors, a case in point being the 1970s left wing terrorist organisations, such as *Rote Armee Fraktion*, which mainly drew from a middle-class strata. There also exists a school of thought proposing that levels of violence is cyclical and much work has been devoted to establish war-cycles but other than retrospectively fitting these, their projective patterns have not survived critical reviews and are largely ignored as explanatory models. Radicalism and its manifestation terrorism appears in fact to be relatively rare events *vis-à-vis* the presence of the structural factors supposed to prompt them.

Anecdotal evidence, however points to changes in the perception of reality as the spark to the inception of violent outbursts that previously appeared unlikely. Something must have prompted a change in the psychological collective mindset, allowing for radicalisation to occur. Although this notion is often disregarded by academia as a causal factor due to its elusive character making objective assessments difficult. By reintroducing the *psychoanalytical* concept of an unconscious part of the mind, this paper suggests as a viable working hypothesis changes in the unconscious as trigger to radicalisation. Whilst the more than century old theories of Sigmund Freud and Carl Gustav Jung might seem antiquated, recent findings in neuroscience, notably *neuropsychoanalytics*, is breathing new life in them by confirming the existence of an unconscious that plays an active part in decision making and how perceptions are interpreted. Freud viewed the unconscious as a dustbin of sorts which stored repressed emotions and desires, deemed 'forbidden' by societal norms, and although repressed they kept impacting behaviour, with a predilection to trigger neurosis, including aggression, directed either inwards or outwards. Jung expanded on Freud's concept of the unconscious and proposed the existence of *archetypes*, innate, biologically encoded universal patterns that seemed to exist collectively regardless of era, culture, or geography. These archetypes generally lie dormant in the unconscious but when a catalyst - an event or emotion in conscious reality - creates a sufficiently strong psychological impetus, an archetype somehow related to that catalyst awakes and begins to stimulate the conscious and alter perceptions. Archetypal images begin to appear, such as symbolic language, and eventually affect conscious thinking and prompt a mental context in which differing sets of actions are likely to be taken compared to the pre-archetype era in order to rectify the psychological unhealthy situation and reduce the likelihood for neurosis. Closely linked to archetypes and the unconscious is the concept of *zeitgeist* which describes the narrative and context to the overall cultural, political -isms, norms, mood sentiments, and/or moral ambience for the particular time époque, such as the *Victorian era*. Certain fixed ideas or themes will come to exist within the zeitgeist. These fixations become norms and an embedded part of the collective's perception of reality, they start to trigger actions and behaviours to synchronise and align with the gist of the zeitgeist. So what in retrospect might appear to have been absurd statements or decisions made by someone were in fact highly rational, under the rigorous context and thought pattern dictated by the zeitgeist. And if elements of reality do not corroborate with the world view provided by the zeitgeist, these are ignored or distorted and interpreted not to conflict with the zeitgeist. Why does a zeitgeist then not stay the same? Over time, norms have a tendency to become fixated into rigid formality in which the original purpose of the norm and psychological balance they were set to ensure no longer can be met, i.e. more aspects of reality is filtered out not to confront the conformity of the zeitgeist. These unbalances triggers the neurotic behaviour and other psychological imbalances that Freud and Jung described and studied. Thus, a starting point in trying to assess the acceptance for elevated levels of aggression in society would be to understand the contemporary zeitgeist, its repressive aspects, and search for changes in the manifestations of the unconscious. For both Freud and Jung, it was clear that the unconscious communicates through symbols, and that symbolic language holds a direct access to the unconscious, a claim which has since been endorsed by a number of empirical tests. Symbolic language, or idioms, are expressions with figurative meaning, the English language alone contains at least 25,000 idiomatic expressions. The most common of them; *the metaphor* works to describe what is confusing by providing comparisons and proximity to what is familiar, in that sense it highlights the distinction where the boundary between knowledge and what is new goes. It also reveals what the suitable proximity will be between what is known and unknown in relation to each other. Therefore the interpretation of metaphors becomes a key tool to understand the subjective perception of reality, as it gives insight to the themes of the zeitgeist. Freud view the symbolic language as the unconscious desires, ideas and fantasies externalising itself organised through common themes and that these starts to influence a society's perception of reality. And symbolic language clearly trends over time, something which reading a dated newspaper displays; buzz words and expressions that were in vogue yesteryear sounds out of date and sometimes outright farcical in a current setting.

With facilitated access to public big data, and through the mining of symbols, it provides material to establish the boundaries of a specific zeitgeist and drawing on dynamic constants allows for the establishment of hard coded rules in forecasting changes in terms of timing, duration and intensity and configuration of vocabulary combinations that precedes radicalisation. With the introduction of a standardised statistical model which appraises the shared psychological commonalities that forms the breeding ground for social commotions and by amalgamating it with a capture methodology that picks up the tidbits that manifests the collective psychological environment and metricising them into the early-warning signals, these can be tracked continuously in a comprehensive manner. The changes in symbolic language can then be trended over time and plotted against the occurrences of acts of political violence, such as deploying the CAMEO event code. What are then the specific symbolic themes that seems to precede radicalisation? Our first findings points to an increased frequency in the use of; *Violent metaphors - Terms of demonisation - Terms of complaints - Terms of revenge - Paranoid language - Terms of intolerance - Abrupt shifts in emotional expressions - Rhetoric becoming intense – Increased use of euphemisms to describe societal taboos – previous buzz words to describe societal dogmas collapse in frequency and/or appear increasingly with exhaustion and stagnation labels – increased use of terms highlighting vulgarity and banality.*