

Can Thematic Content Analysis Separate the Pyramid of Ideas from the Pyramid of Action? A Comparison Among Different Degrees of Commitment to Violence

Peter Suedfeld, Ryan W. Cross, and Carson Logan

The University of British Columbia

psuedfeld@psych.ubc.ca

Abstract

The publicly accessible messages of 15 extremist groups were coded by Thematic Content Analysis (TCA). Orientations toward violence included activist, militant, and terrorist groups; their goals derived from animal rights, Islamist, territorial, or white supremacist ideologies. TCA is a set of scientifically rigorous methods for converting running text into quantitative data, analyzable by standard statistics. A measure of cognitive integrative complexity (IC) showed significant declines across groups as they increased in their acceptance of violence, higher power imagery for terrorist compared to the other groups, and high importance among terrorists on the values of self-direction (autonomy), character (virtue, sincerity, honor), and benevolence (caring for those close to oneself). The results demonstrate the usefulness of IC coding to assess groups' acceptance of, and proneness to, violence.

Key points

- Thematic content analysis (TCA) can be used to assess open-source messages of extremist groups reliably and with a high degree of rigor.
- Integrative complexity (IC), an unobtrusive TCA measure of cognitive structure, shows reliable decreases associated with increases in the acceptance and practice of violence.
- Power motivation increases with positive orientation to violence, but the results are less clear-cut than with IC.
- Terrorist groups emphasize the values of autonomy, virtuous character, and care for those close to oneself.
- TCA may be useful in differentiating the dangerousness of groups, and may also point to optimal approaches to deradicalization.

Introduction

Extremism is defined as an attitudinal position at either end of any ideological dimension (political, religious, ethical, moral, philosophical, ecological, etc.). The word "dimension" implies that there are two opposite anchor points at the extreme ends, with a range of less extreme -- i.e., more or less moderate -- points between them. In this sense, extremism is merely a locator term along the dimension; by implication, extreme positions may be perceived as those outside the latitude of acceptance of the majority culture (Hovland & Sherif, 1980). It is useful, however, to differentiate positions that differ in how far they lie from the boundary that separates the latitude of acceptance from the latitude of rejection.

There have been a number of proposals as to the categorization of such groups (e.g., LaFree & Bersani, 2012). We have found a useful concept in McCauley's (2011) two-pyramid model, distinguishing between levels of radicalization: extremism-supporting ideas, and extremism-supporting actions. Presumably, the latter are further out on the acceptance-rejection dimension. We use four terms: "Extremist" is an overall descriptor of groups and individuals whose ideology is outside the range of acceptance; using the terminology of Moskalenko and McCauley (2009), we use the terms "Activist," "Radical," and "Terrorist" to refer to specific groups that vary along the pyramids of ideas and actions (see Method).

The importance of understanding the psychological characteristics of extremist leaders and groups has two aspects. From the point of view of psychological theory, it is interesting to understand the characteristics that differentiate such people and groups as outliers from the norm and from each other. Second, it is desirable to establish the potential usefulness of thematic content analysis, used in many studies of international relations, in the context of research on extremism.

From an applied perspective, understanding the psychology of extremists differing in their willingness to accept and commit violence can be used to assess the dangers posed by each group. Changes in their psychological processes may be markers of impending attacks, the analysis of current and prospective leaders may identify more or less aggressive candidates for leadership, and the data may guide the design of material intended to move members or leaders to less pro-violence strategies or to enhance the possibility of successful negotiations.

The study reported here used thematic content analysis (TCA) to assess the cognitive processes, power motivation, and basic values of groups espousing a variety of extremist goals and strategies. TCA is a class of techniques for turning qualitative materials (interviews, manifestos, blogs, press releases, etc.) into quantitative data, with rigorous methods for scoring and data analysis. Identifying information is removed from the texts as much as possible while maintaining the coherence of the material. The excerpts to be scored are selected randomly from the total available database and then mixed in random order. Detailed coding manuals are used to generate quantitative scores of the chosen variable. Scorers are trained and tested to establish their accuracy by comparing their scores with those of experts, and inter-rater reliability is re-tested for every study. The scores can then be analyzed by normal inferential statistics such as ANOVA and regression. TCA coding manuals exist for many variables, and others can be developed fairly easily (Smith, 1992).

TCA has been used widely in political psychology. Among its major applications have been the study of changes in the psychological processes of governmental decision-makers and representatives as international crises develop and move to their resolution, and the forecasting of both international and domestic political violence. Individuals who have been studied range from student samples to members of political parties, societal elites, and high-level military, political, and revolutionary leaders (reviewed in Suedfeld, 2010). A recently published set of studies addressed differences in psychological variables among four Islamist groups (Smith et al., 2008).

This paper describes a TCA study that assessed psychological processes in trios of extremist groups matched for ideological content (ethnic/religious, territorial, or civic) but differing in their support for violent tactics.

Method

Three TCA methods were employed in the study. The groups whose messages were scored were divided into categories along two dimensions: their orientation toward violence, and their ideology or goal.

The TCA variables were:

Integrative complexity (IC), a measure of ongoing cognitive processes, based on scoring two components: *differentiation*, the perception of more than one dimension or legitimate viewpoint on a topic, and *integration*, the perception of relationships among differentiated percepts. IC has been shown in many studies to indicate the degree of flexible, nuanced, and perspective-taking thinking, with consistent relationships to political party membership, political career success, and the outcome of negotiations in conflict situations.

The basic scoring unit is the paragraph, and scoring follows a 1-7 scale. Scores range from 1 (undifferentiated) through 3 (differentiated, not integrated) and 5 (integrated) to 7 (multi-level integration, with integrated percepts subsumed under an overarching cognitive schema) (Baker-Brown, et al., 1992).

2. *Power motive imagery (need for Power, nPow)* is an index of the degree to which the individual is motivated to exert influence over others. It is scored by the percentage of references indicating such motivation among all motive-related words in 1,000 words of text. It is related to the behaviors of political and business leaders in negotiations and other conflict situations (Winter, 1991).

3. *Universal values* are the guiding principles by which people lead their life. Approximately 11 (the actual number can vary slightly depending on the focus of the study) such values represent major categories that have been found to apply across 20 divergent cultures around the world (Schwartz, 1992). The values scored in this study were selected from that list as appearing to be especially relevant to extremist groups: Universalism, an appreciation of the unity of humankind and the environment; Self-direction or autonomy; Character, comprised of virtue, honour, honesty, and similar traits; Power, as in the nPower variable described above; Hedonism, or the enjoyment of physical pleasure; and Benevolence, caring for those close to oneself or one's own group. The hierarchy is established by counting the number of mentions related to each value in a body of text.

The groups included in this study are categorized along two dimensions: Orientation toward violence and goal or ideology.

Orientation toward violence. The groups were divided into three categories, as follows: The *Activist* category is comprised of groups that pursue their goals by political means only, and explicitly renounce and denounce violence. *Radical* groups do not participate in violence, but decline to condemn it. *Terrorist* groups admit to practicing violence in support of their cause, including attacks against civilian targets to weaken societal resistance.

Goals and ideologies were also divided into three categories: Territorial, in this case Irish Nationalist and Tamil, both seeking independence from a larger polity; Ethnic/Religious, including Islamists with different geographic ranges of activity (Israel, the West Bank, and Gaza; the Middle East more generally; and global) and White supremacists; and Civic, which at this point is represented only by the animal rights movement. We are planning to increase the number of groups in all of these categories. Table 1 presents the list of groups on which data have been collected so far.

Table 1. Groups included in the study.

Goal/Ideology	Category		
	Activist (legal, opposed to violence)	Radical (legal, but not opposed to violence)*	Terrorist (violent)
Animal Rights	PETA	Animal Liberation Front Press Office	Animal Liberation Front
Islamist		Hizb ut-Tahrir; Movement for Islamic Reform in Arabia	Hezbollah; al-Qaeda; al-Qaeda in the Arabian Peninsula
Territorial	Social Democratic & Labour Party; Tamil National Alliance	Sinn Fein	Provisional IRA; Tamil Tigers
White Supremacy		Non-violent white supremacy (various)	Aryan Nations

*This is a modification of the overall terminology used in the white paper, to enable the inclusion of groups not fitting into the other taxonomy.

All of the scored material was obtained from open sources, mostly from the Internet. The organizations included in the study have their own websites, and various academic and governmental bodies also collect the statements issued by the organizations. Except for Hezbollah, the data for Islamist groups were imported from Smith et al. (2008) by permission.

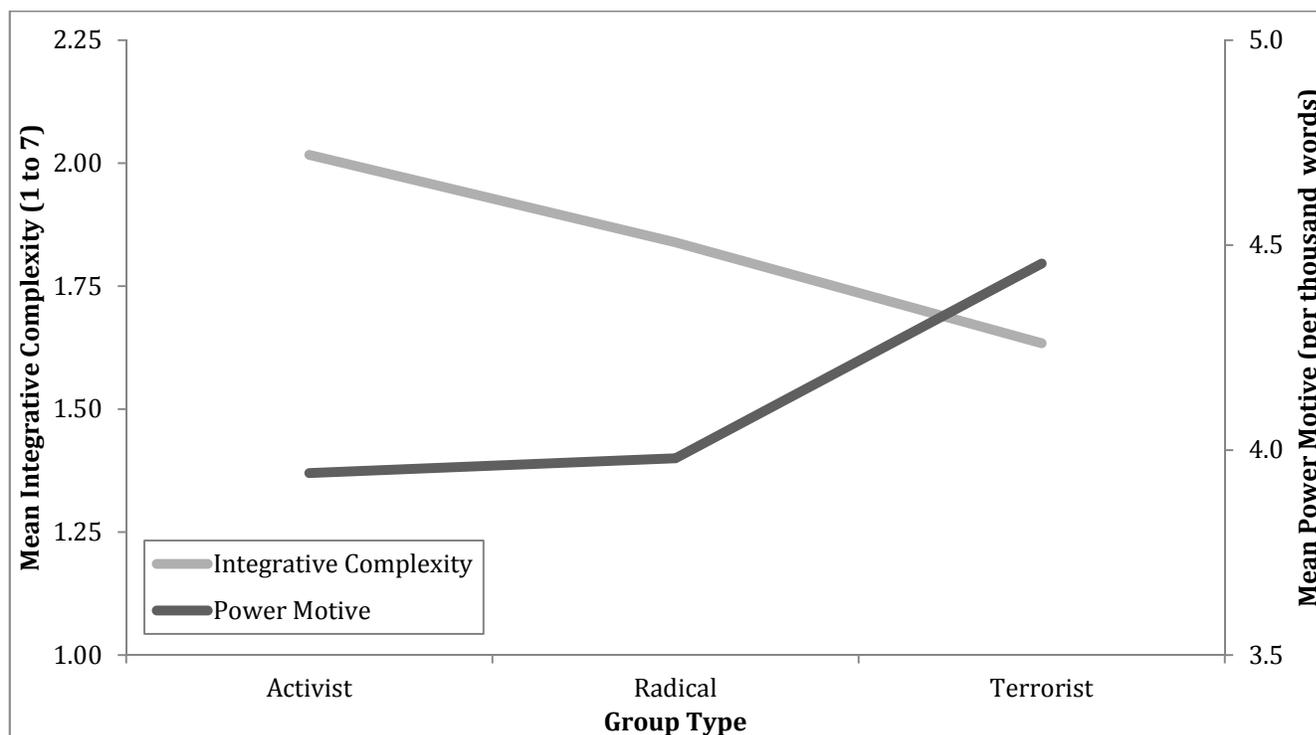
The hypotheses of the study were derived both from theoretical propositions and from previous findings. We predicted that as groups declared greater acceptance of violence, their level of IC would decline and their Power orientation would increase. We also expected that the Terrorist (most violent) groups would be higher than the others in endorsing the values of Power, Character, and (ingroup) Benevolence, and lowest in Universalism and Hedonism.

Results

Mean IC declined linearly from Activist ($M=2.02$, $SD=0.93$) to Radical (1.84 , 0.93) to Terrorist ($M=1.64$, $SD=0.83$) groups. The overall ANOVA was significant [$F(92,1222)=8.66$, $p<.001$], and all pairwise differences reached statistical significance at $p<.05$ or better by the Tukey test. Pairwise differences in effect size were related to distance along the extremism dimension: Cohen's d was 0.19 for the difference between Activists and Radicals, 0.23 for that between Radicals and Terrorists, and 0.43 for the comparison between Activists and Terrorists.

Mean Power motivation [ANOVA $F(92,392)=5.82$, $p=.006$] was highest in Terrorist groups ($M=4.46$, $SD=9.24$), which were significantly different from Radicals ($M=3.98$, $SD=8.85$; Games-Howell post hoc test $p=.02$). The effect size was small, Cohen's $d=0.05$. The Activist and Radical ($M=3.94$, $SD=6.88$) groups did not differ significantly from each other. Ideology or goal did not differentially affect either psychological variable. Figure 1 shows the differences in IC and Power motivation across groups.

Figure 1. Mean IC and Power motivation by group.



Significant differences were found on four values as a function of orientation to violence. Terrorists were higher than both other groups on Self Direction [$F(2,115)=10.88, p<.01$, pairwise comparisons $p<.001$] and Character [$F(2,138)=33.43, p<.001$; pairwise comparisons $p<.001$], and higher than Radicals on Benevolence [$F(2,113)=3.69, p<.01$; pairwise, $p<.01$]. Radicals were higher than both other groups on Universalism, $F(2,99)=21.43, p<.001$. The only significant difference by goal or Ideology was that groups with territorial goals were higher than the other two groups in Universalism, $F(3,104)=13.10, p<.001$.

Discussion

Most of our hypotheses were supported by the data. Groups with increasingly positive orientations toward violence were characterized by lower integrative complexity and to a lesser degree by higher power motivation. Differences in values were mostly as predicted, except that Universalism was lowest in Radical rather than Activist groups, and there was no difference across the groups in Hedonism.

The negative relationship between IC and Power motivation had been previously reported in change scores as nations moved toward war, and in comparisons of a small sample of groups (Suedfeld, 2010). The reliability of the relationship across a variety of ideological causes and cultures is both new and of significant interest. So is the integration of Values data into the pattern. In previous research, IC and nPow were both markers for impending violence, but IC was more consistent in that regard (e.g., Stewart & Suedfeld, 2012). In the current study, both variables were related to pro-violence orientation, but IC was able to differentiate significantly among all three categories of groups whereas nPow only distinguished the most violent category, Terrorists. Furthermore, effect size calculations supported the greater reliability of the IC results: relatively small for the one-step differences and medium for the two-step gap between Activists and

Terrorists. By contrast, even the one significant difference in nPow, that between Radicals and Terrorists, showed an extremely small effect size. This supports the conclusion that aside from qualitative studies, IC is one of the very few methods for reliably differentiating violent from non-violent extremist groups on the basis of publicly available materials.

Implications

In terms of possible applications, the fact that TCA (especially IC and to a lesser degree Power imagery) can identify variations in cognitive and other psychological characteristics across groups that differ in their acceptance of terrorism can help to identify the degree to which groups may be dangerous and deserving of monitoring and countermeasures. Conversely, TCA may also identify which groups might be more open to deradicalization. Changes in IC may be omens of impending terrorist attack. The degree to which a current leader, or members of a potential group of leaders, fit the pattern of the category to which their group belongs may indicate whether the group will remain in that category, or could predict the direction in which a particular leader may move his or her group.

Materials for encouraging disaffection from a group, perhaps in favour of a less violent one, as well as strategies for negotiations, could be designed to consider the principles that describe particular groups. From a cognitive viewpoint, there are two ways to try to persuade people or groups to move along McCauley's (2009) deradicalization ladder. One is to address the content of their belief systems through targeted messages. Our data indicate that any persuasive tactic used in dealing with Radical and especially Terrorist groups must express respect for their power and autonomy, and extol their virtuous character and their care for their comrades, supporters, clans, and families. Even so, a backlash may result if group members, who already feel devalued by their adversaries, perceive that the group's important attitudes are being attacked. Another potential problem is the reaction of the general public if such positive characterizations of extremist groups become widely known. As might be expected, appeals to common humanity or greater enjoyment of life will not find resonance in any of these groups. Some differences in the message may also be useful; for example, two-sided arguments might lead Activists to consider alternative viewpoints, but are not likely to have an impact on members of the other two groups (Hovland, Janis, & Kelly, 1953).

The alternative approach is to refrain from attacking the group's current belief system and instead to encourage a reduction in rigid, dogmatic thinking (Rokeach, 1960) by enhancing the audience's ability to process new and dissonant information; in other words, to raise the audience's IC. This strategy has been used with promising short-term success by Liht and Savage (Liht & Savage, n.d.; Savage, Liht, & Williams, 2011), although long-term followups and applications to fully committed extremists are lacking at this time. Being able to accept that there may be multiple legitimate viewpoints on a topic (without necessarily abandoning one's own viewpoint) or that the topic may have more than one relevant dimension – i.e., differentiation in IC terms – is a significant step away from the Manichean belief systems that are associated with extremism. Procedures similar to this could also be developed to change the relative importance of motives, which we know are responsive to social parameters (McClelland, 1965). At this point in time, the mutability of values is uncertain.

Acknowledgments

We are grateful to (in alphabetical order) Danyl Beilhartz, Lindsay Belich, Jelena Brcic, Anna Cooper, Ashley Hayer, Phyllis J. Johnson, Bradley H. Morrison, Courtney Parr, Lisa Shiozaki, and Allison Smith for their contributions to various aspects of the research. This research was made possible by

funding from Technology Investment Fund Project 15dz01 on Adversarial Intent (Project Manager David Mandel). We especially thank Dr. Mandel for suggesting and calculating the effect sizes reported in the Results section.

Portions of this material were presented at the 2012 meeting of the International Society of Political Psychology, Chicago.

References

Baker-Brown, G., et al. (1992). The conceptual/integrative complexity scoring manual. In C.P. Smith (Ed.), *Motivation and personality: Handbook of thematic content analysis* (pp. 401-418). New York: Cambridge University Press.

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.

Hovland, C. I. & Sherif, M. (1980). *Social judgment: Assimilation and contrast effects in communication and attitude change*. Westport: Greenwood.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: The Free Press.

LaFree, G. & Bersani, B. (2012). *Hot spots of terrorism and other crimes in the United States, 1970-2008*. Final report to Human Factors/Behavioral Sciences Division, Science and Technology Directorate, US Department of Homeland Security. College Park, MD: National Consortium for the Study of Terrorism and Responses to Terrorism (START).

Liht, J., & Savage, S. (n.d.). Preventing violent extremism through value complexity: *Being Muslim Being British*. Unpubl. paper, University of Cambridge.

McCauley, C. (2011, 10 Oct.). *Group desistance from terrorism: Dynamics of actors, actions, and outcomes*. Presented at the Royal Institute for International Relations (Egmont Institute), Brussels. Accessed 25 June 2013 from www.egmontinstitute.be/spechnotes/11/111010/Clark-McCauley.pdf

McClelland, D.C. (1965). Toward a theory of motive acquisition. *American Psychologist*, 20, 321-333.

Moskalenko, S., & McCauley, C. (2009). Measuring political mobilization: The distinction between activism and radicalism. *Terrorism and Political Violence*, 21, 239-260.

Rokeach, M. (1960). *The open and closed mind*. New York: Wiley.

Savage, S., Liht, J., & Williams, R. (2011). Being Muslim being British: Preventing extremist violence through raising integrative complexity. In M. Sharpe and F. Gere (Eds.) *The intangibles of security*. NATO publication, IOS Press, NL.

Smith, A.G., Suedfeld, P., Conway, L.G. III., & Winter, D.G. (2008). The language of violence: Distinguishing terrorist from nonterrorist groups by thematic content analysis. *Dynamics of Asymmetric Conflict*, 1(2), 142-163. Also available at <http://dx.doi.org/10.1080/17467580802590449>

Schwartz, S. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). New York: Academic Press.

Smith, C.P. (Ed.). *Motivation and personality: Handbook of thematic content analysis*. Cambridge: Cambridge University Press.

Stewart, M.R. & Suedfeld, P. (2012). Psychological concomitants and predictors of violence during political upheaval in Zimbabwe: A content analysis study. *Dynamics of Asymmetric Conflict*, 5, 77-95.

Suedfeld, P. (2010). The cognitive processing of politics and politicians: Archival studies of conceptual and integrative complexity. *Journal of Personality*, 78, 1669-1702.

Winter, D.G. (1991). Measuring personality at a distance: Development of an integrated system for scoring motives in verbal running text. In A.J. Stewart, J.M. Healy, Jr., & D.J. Ozer (Eds.), *Perspectives in personality: Approaches to understanding lives* (pp. 59-89). London: Kingsly.