Strategic Security

I SEE! Scotland: Tackling Sectarianism and Promoting Community Psychosocial Health

Eolene M. Boyd-MacMillan
University of Cambridge, emb43@cam.ac.uk

Patricia Andrews Fearon
University of California - Berkeley, pba21@cam.ac.uk

Amanda M. Ptolomey
Glasgow Caledonian University, am.ptolomey@gmail.com

Laura J. Mathieson
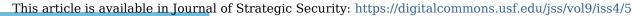*University of Glasgow*, laurajane_math@live.co.uk

I SEE! Scotland: Tackling Sectarianism and Promoting Community Psychosocial Health

Abstract

We developed and tested through two studies a new intervention run as a course, I SEE! Scotland, to reduce and prevent Protestant-Catholic sectarianism in Scotland, a historic inter-group conflict expressed in forms ranging from polite to violent, within a wider population that includes those who feel untouched. Designed to reflect the social ecology of Scotland and engage individuals regardless of sectarian involvement, the intervention aimed to increase cognitive complexity, measured as integrative complexity, through participatory theatre and experiential methods. We hypothesised that the confluence of experiential learning to support multiple forms of self, other, and systems awareness with narrative framing would increase integrative complexity management capacities. Tested with a diverse sample of 104 participants (secondary school staff; achieving, disruptive or vulnerable students; young adults returning to education; other professionals; prisoners; recovering drug addicts; unemployed), study one pre-post comparisons showed significant integrative complexity gains that cohered with second end of intervention integrative complexity measures, replicating results from other integrative complexity interventions despite differences in samples, conflicts, and context. Study two with twenty-eight of the one hundred and four participants showed significant pre post increases in resilience. These results predict peaceful outcomes to intergroup conflict, tackling sectarianism and promoting community psychosocial health. We note future research plans.

Acknowledgements

Introduction

Since 2013, participants have been emerging from I SEE! Scotland, an intervention offered as a *life skills* course (typically sixteen contact hours, delivered as two hour sessions), with comments such as, "it changed my life," "everyone could benefit from this course," "I want to be trained to facilitate," "my community centre can be an IC [integrative complexity] Centre," and "I want to stay in contact" for encouragement and ongoing development of capacities and skills.[1] These comments have been accompanied by reports of discoveries that one was not as tolerant and non-judgemental as one thought, improvement in personal and professional relationships, having been on a deep journey, having enrolled because "my colleague changed after going through this course," and "look at how much we have changed –we are more mature and confident."[2] Funded by the Scottish Government, I SEE! Scotland

---

[1] Quotation from NGO/third sector participant, now I SEE! Scotland facilitator, trainer of trainers, and researcher; quotation from filmed interviews twenty-two months after course completion, un-rehearsed, non-briefed. "I SEE! Scotland In-depth: IC GRAEME HIGH (nine minutes)," and "I SEE! Scotland Overview: IC GRAEME HIGH (four minutes)," IC Thinking, September 2015, both available at: *https://www.youtube.com/channel/UCodRs5EdXAoJmKOZk3qy3-Q*; thirty-five percent (thirty-six of 104 participants total) have been trained to facilitate; quotation from Community Centre Director, West Scotland; statement made by students, prisoners, professionals, unemployed, school staff, NGO/third sector project staff.

[2] For example, quotations from end of course presentations by NGO/third sector staff and professional network members: "Well, actually I thought I was quite rational and reasonable and all of those things and then there were a couple of exercises that I went through and I was like, hmmm… maybe I'm not quite as open minded as I thought I was. That was a bit of a shock because I really did think I was pretty open-minded and quite accepting," "I think it's something that I took for granted prior to starting the course…you know, I'm non-judgmental, I'm a very equal and diverse person. And when I even mentioned it to some colleagues, I even had some colleagues saying, you know, "Of course everybody's non-judgmental and full of equality," and I'm going, "Well, actually, if we break that down!"," and "And what I experienced was that it held a mirror up to me and let me look at how…just how entrenched I am in my views as well. So it's very, it's a very deep learning, actually;" for example, quotations from end of course presentations by re-entering education college students: "IC [integrative complexity] has taught me how to listen and understand…I use IC a lot in my everyday life, in my workplace, at college, and at home. IC has made me more aware of how others can feel and I have learned to empathise easier," and "IC means a lot to me…apply this to my everyday life in college by listening to their viewpoint and try to understand it and respect it even if I don't agree all the time. IC has a huge effect in my life as it helps me in working with people;" for example, quotations from end of course presentations by third sector staff and professional network members: "So…there's been a real deep core thing for me in recognizing who I am, where I'm coming from, and where I want to go," and "Often you think, well I'm getting your argument and I understand and can be empathic, but what happened to me during the course was that I kind of crossed a bridge. Empathy is understanding and feeling, but actually crossing the bridge is a step further or was a step further for me. So that was quite significant;" quotation from NGO/third sector participant, now I SEE! Scotland facilitator; quotation from returning to education

www.manaraa.com

was designed to tackle Protestant-Catholic sectarianism by leveraging empirically measurable increases in cognitive complexity using the cross-culturally validated measure called integrative complexity. Integrative complexity measures refer to the absence and increasing presence of deliberate, open, flexible thinking that recognises legitimacy in other viewpoints.[3] In a first study, we compared integrative complexity measures pre-post intervention and found significant gains, predicting more peaceful outcomes to such inter-group conflicts and extremisms as sectarianism.[4] In a second study, pre-post resilience measures showed significant increases.[5] These empirical results and participant self-reports, along with demand for the intervention exceeding delivery capacity, together indicate that the intervention not only tackles sectarianism, but promotes general public mental health by building social capital and community resilience.

---

college student participant, speaking on behalf of all of the participants for that course run, advocating for wide roll-out of the course.

[3] Bradford H. Morrison and Peter Suedfeld, "*Si Vis Pacem, Para Bellum*: Applying Thematic Content Analysis to Anticipating Threats to US security," *White Paper on Assessing and Anticipating Threats to US Security and Interests: A Bio-Psycho-Social Science Approach to Understanding the Emergence of and Mitigating Violence and Terrorism,* March 2016: 146-149, available at: *http://www.birmingham.ac.uk/Documents/college-social-sciences/government-society/iccs/policy/anticipating-security-threats.pdf*; Gloria Baker-Brown, Elizabeth J. Ballard, Susan Black, Brian de Vries, Peter Suedfeld, Philip E. Tetlock, *Coding Manual for Conceptual/Integrative Complexity* (University of British Columbia and University of California, Berkeley, 1992), available at: *http://faculty.haas.berkeley.edu/tetlock/Vita/Philip%20Tetlock/Phil%20Tetlock/1992-1993/1992%20Conceptual%20Integrative%20Complexity%20Scoring%20Manual.pdf*.

[4] Jason M. Satterfield and Philip E. Tetlock, "Military Aggression and Risk Predicted by Explanatory Style," *Political Science* 5 (1994): 77-82, available at: *http://pss.sagepub.com/content/5/2/77?cited-by=yes&legid=sppss;5/2/77* ; Philip E. Tetlock and Anthony Tyler, "Winston Churchill's Cognitive and Rhetorical Style: The Debates Over Nazi Intentions and Self-Government for India" *Political Psychology* 17 (1996): 149-170, available at: *http://www.jstor.org/stable/pdf/3791947.pdf;* Peter Suedfeld, "The Cognitive Processing of Politics and Politicians: Archival Studies of Conceptual and Integrative Complexity," *Journal of Personality* 78:6 (2010): 1669–1702, available at: *http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6494.2010.00666.x/full;* Peter Suedfeld, Ryan W. Cross, and Carson Logan, "Can Thematic Content Analysis Separate the Pyramid of Ideas from the Pyramid of Action? A Comparison Among Different Degrees of Commitment to Violence," in Hriar Cabayan, Valerie Sitterle, and Matt Yandura (eds.), *Looking Back, Looking Forward: Perspectives On Terrorism and Responses To It* (Washington, D.C.: Strategic Multi-Layer Assessment Occasional White Paper, 2013): 61-68, available at: *http://www.start.umd.edu/sites/default/files/files/publications/SMAWhitePaper_PerspectivesonTerrorismandResponsestoIt_Sept2013.pdf*.

[5] Kathryn M. Connor and Jonathan R. T. Davidson, "Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC)," *Depression and Anxiety* 18 (2003): 76-82, available at: *http://onlinelibrary.wiley.com/doi/10.1002/da.10113/abstract*.

www.manaraa.com

Sectarianism in Scotland

Protestant-Catholic sectarianism in Scotland and Northern Ireland differ in many ways, yet in Scotland "there is considerable evidence of cultural, organizational and even paramilitary connections" with Northern Ireland.[6] With roots stretching back to the Reformation, after Scottish devolution in 1997, four events put sectarianism in the spotlight:

- Composer and Catholic James MacMillan's 1999 speech, "Scotland's Shame," about Catholics feeling marginalised and de-valued in Scotland, delivered at the Edinburgh International Festival, triggered column inches of debate. A year later, the publication of *Scotland's Shame? Bigotry and Sectarianism in Modern Scotland* edited by historian Tom Devine, presented a spectrum of views;
- Scotland's then First Minister Jack McConnell's 2003 enactment of Anti-Sectarian legislation (Section 74);
- Parcel bombs sent in 2011 to Celtic Football Club manager Neil Lennon, his lawyer Paul McBride, QC, and former deputy presiding officer of the Scottish Parliament, Trish Godman, a prominent Celtic fan. Celtic Football Club historically is seen as a Catholic Club, Rangers Football Club as Protestant; a link has been found between increases in violence in the home and Celtic-Rangers (old firm) games;
- In 2012, the Scottish Government (SG) formed an Independent Advisory Group to make policy recommendations and to review the work of over forty community projects funded by the SG across Scotland to tackle sectarianism.[7]

The Advisory Group's final report (2015) offers the following definition:

---

[6] The Scottish Government, *Tackling Sectarianism and Its Consequences in Scotland: Final Report of the Advisory Group on Tackling Sectarianism in Scotland* (Edinburgh: May 2015): 13, available at: *http://www.gov.scot/Publications/2015/05/4296*.
[7] Ibid., 12; Tom M. Devine (ed.), *Scotland's Shame? Bigotry and Sectarianism in Modern Scotland*, (Edinburgh: Mainstream Publishing, 2000); Criminal Justice (Scotland) Act 2003, Part 12, Miscellaneous, Section 74, available at: *http://www.legislation.gov.uk/asp/2003/7/notes/contents*; James Cook, "Parcel Bombs Sent to Neil Lennon, McBride and Gordon," *BBC News*, April 20, 2011, available at: *http://www.bbc.co.uk/news/uk-scotland-glasgow-west-13129139*; Damien J. Williams, Fergus G. Neville, Kirsty House, and Peter D. Donnelly, "Association between old firm football matches and reported domestic (violence) incidents in Strathclyde, Scotland," *SAGE Open* (July-September, 2013): 1-7. *doi:10.1177/2158244013504207;* Ulster University News, "Ulster Expert to Chair Scots Anti-Sectarianism Body," 28th September 2012, available at: *http://news.ulster.ac.uk/releases/2012/6563.html*.

"Sectarianism in Scotland is a mixture of perceptions, attitudes, actions, and structures that involves overlooking, excluding, discriminating against or being abusive or violent towards others on the basis of their perceived Christian denominational background. This perception is always mixed with other factors such as, but not confined to, politics, football allegiance, and national identity."[8]

Further elaborated:

"Being "Catholic" or "Protestant" in Scotland was not something limited to the realm of theology and religious life, but fostered identity and belonging in distinctive cultural patterns and shaped the organisation of community life: what was remembered and what was passed on, how people behaved and what they expected in workplaces, the organisation of schools, cultural organisations and even politics. Often it provided a framework whereby people were identified and treated as "different," "outsiders," "less important," or "suspicious.""[9]

The SG initially funded the IC (Integrative Complexity) Thinking Group to develop, pilot, and assess a new intervention run as a course, "I SEE! Scotland," to tackle sectarianism (2012-2013).[10] Two subsequent rounds of funding were to pilot, assess, and make sustainable I SEE! Scotland across the country with diverse demographics (2013-2015, 2015-2016).[11] Underway is a fourth funding to run and assess I SEE! Scotland in a young offenders' institution, and with community workers (2016-2017).

A New Intervention to Tackle Sectarianism

As expressed in the Advisory Group's definition and elaboration, sectarianism is part of the social ecology in Scotland. It involves complex interactions with

---

[8] The Scottish Government, *Tackling Sectarianism,* 5.

[9] Ibid., 10.

[10] Eolene Boyd-MacMillan and Sara Savage, "Report on I SEE! Life Skills for a Changing Scotland Course Effectiveness Empirical Evaluation," *IC Thinking (Cambridge) Ltd.*, April 2013, available at: *https://sites.google.com/site/icthinking/research-base/icthinking-research-group-publications*.

[11] Eolene Boyd-MacMillan, "Final Report on I SEE! Life Skills for a Changing Scotland Project Effectiveness Empirical Evaluation," *IC Thinking (Cambridge) Ltd.*, April 2015, available at: *https://sites.google.com/site/icthinking/research-base/icthinking-research-group-publications*; Eolene Boyd-MacMillan, "I SEE! Scotland/ IC Thinking End of Year Report 2015-2016 Tackling Sectarianism Programme," *IC Thinking (Cambridge) Ltd.*, April 2016, available at: *https://sites.google.com/site/icthinking/research-base/icthinking-research-group-publications*.

www.manaraa.com

psychological and environmental (family, school, community, cultural) processes, giving rise to "dysfunctional feedback loops"–shared contexts of meaning about identities, networks, expectations, and loyalties, expressed through symbolic languages, cultural constraints, and power relationships– that support destructive behaviours and relationships.[12] The interaction of many levels of variables makes the science of tackling sectarianism messy, rendering simple associations among variables less determined and requiring questions and interventions designs that are more complex.

The question behind the design of I SEE! Scotland is: *Can an experiential intervention delivered as a life skills course leverage empirically measurable increases in cognitive complexity while reflecting the social ecology of sectarianism in Scotland*? Other IC (Integrative Complexity) Thinking interventions delivered as courses (typically sixteen contact hours, delivered as two hour sessions) successfully leveraged integrative complexity gains among British and Kenyan Muslims who might be targeted for radicalisation by violent extremist groups, while reflecting the social ecology of traditional Muslim and modern Western culture clashes challenging young Muslims.[13] However, the diffuse social ecology of sectarianism in Scotland required that I SEE! Scotland be designed for flexible delivery and testing with a very diverse sample in a variety of contexts, raising questions about the relevance of integrative complexity gains for tackling a spectrum of sectarian behaviours (including "polite" expressions, not only violence), and for the general population of all ages and backgrounds (not all of whom are touched by sectarianism).[14]

Integrative Complexity

A measure of the way we engage with or process social information, integrative complexity comprises two parts, differentiation, and integration.

---

[12] Thomas F. Pettigrew, "Toward Sustainable Psychological Interventions for Change," *Peace and Conflict* 17 (2011): 179-192, available at: *https://www.researchgate.net/publication/232974470_Toward_Sustainable_Psychological_Interventions_for_Change*; David Diamond, *Theatre for Living: The Art and Science of Community-Based Dialogue* (Victoria, Canada: Trafford Publishing, 2007), 16; Lynn Davies, "Interrupting Extremism by Creating Educative Turbulence," *Curriculum Inquiry* 44 (4, 2014): 450-468, *doi:10.1111/curi.12061*.

[13] Jose Liht and Sara Savage, "Preventing Violent Extremism Through Value Complexity: Being Muslim Being British," *Journal of Strategic Security* 6 (Winter 2013): 44-66, doi:10.5038/1944-0472.6.4.3; Sara Savage, Anjum Kahn, and Jose Liht, "Preventing Violent Extremism in Kenya through Value Complexity: Assessment of Being Kenyan Being Muslim," *Journal of Strategic Security* 7 (Fall 2014): 1-26, *doi:10.5038/1944-0472.7.3.1*.

[14] The Scottish Government, *Tackling Sectarianism,* 6, 11, 23-24, 29

www.manaraa.com

Differentiation involves recognising more than one dimension in an issue or finding some legitimacy in different viewpoints, while integration involves identifying links among the different dimensions or viewpoints, such as mutual influence among conflicted groups.[15] A drop in integrative complexity predicts destructive or violent inter-group conflict, while high integrative complexity can predict more peaceful outcomes to conflict.[16] Differentiation and integration can each be broken down into elaborative (complex elaboration of one view) and dialectical (complex interactions among different views) complexity.[17] The cross-culturally validated integrative complexity measurement frame involves assigning low to high scores to verbal data based on the absence and increasing presence of differentiation and integration.[18]

Cognitive complexity is itself complex, so it is not surprising that the behaviours associated with low and high integrative complexity have pros and cons.[19] High integrative complexity is characterised by openness to new ideas and recognition of diverse opinions, along with flexibility and resilience.[20] In contrast, rapid and inflexible thinking that does not recognise the legitimacy of different viewpoints characterises low integrative complexity (e.g., all Protestants/Catholics exclude, discriminate, abuse, and are violent against us). However, low integrative complexity delivers quick decisions with uncompromising principles. High integrative complexity is more deliberate, sometimes indecisive (distracted by too much information) and may involve moral compromises.[21] However, recognising some legitimacy in opposing

---

[15] See note 3 above.

[16] See note 4 above.

[17] Luke G. Conway, III, Felix Thoemmes, Amy M. Allison, Kirsten H. Towgood, Michael J. Wagner, Kathleen Davey, Amanda Salcido, Amanda N. Stovall, Daniel P. Dodds, Kate Bongard, and Kathrene R. Conway, "Two Ways to Be Complex and Why They Matter: Implications for Attitude Strength and Lying," *Journal of Personality and Social Psychology* 95 (5, 2008): 1029-1044. *doi:10.1037/a0013336.*

[18] Baker-Brown et al., "*Coding Manual.*"

[19] Ibid.; Morrison and Suedfeld, "*Si Vis Pacem*," 146-147.

[20] Laura R. Saslow, Shannon McCoy, Ilmo van der Lowe, Brandon Cosley, Arbi Vartan, Christopher Oveis, Dacher Keltner, Judith T. Moskowitz, and Elissa S. Epel, "Speaking Under Pressure: Low Linguistic Complexity is Linked to High Physiological and Emotional Stress Reactivity," *Psychophysiology* 51 (2014): 257–266, available at: *http://socrates.berkeley.edu/~keltner/publications/Saslow2014.pdf*; Mark Pancer, Michael Pratt, Bruce Hunsberger, Margo Gallant, "Thinking Ahead: Complexity of Expectations and the Transition to Parenthood," *Journal of Personality* 68 (Apr, 2000): 253-280, available at: *http://onlinelibrary.wiley.com/doi/10.1111/1467-6494.00097/abstract.*

[21] Philip E. Tetlock, Linda Skitka, and Richard Boettger, "Social and Cognitive Strategies for Coping With Accountability: Conformity, Complexity, and Bolstering," *Journal of Personality and Social Psychology* 57 (October, 1989): 632-640, available at:

www.manaraa.com

viewpoints offers potential for collaboration despite disagreement (e.g., I disagree with Protestants/Catholics, but they have some valid views and we need to work together to create safe communities for our children).[22] An issue may involve both low integrative complexity (e.g., total opposition to slavery) and high integrative complexity thinking (e.g., complex strategies to reduce and prevent slavery), creating a complex and therefore high integrative complexity stance, overall. Thus, the aim of our intervention is to increase integrative complexity *management* capacities, involving cognitive management and emotion regulation as forms of self-management, leveraged through experiential learning and basic information about psychosocial processes to increase self, other, and systems awareness.[23]

This aim guided the design of I SEE! Scotland to be relevant to tackling sectarianism (from polite to violent expressions), extremisms in general, and the wider population. Extremisms, defined as polarised positions on any ideological dimension (e.g., political, religious, ethical, moral, philosophical, ecological) are characterised by low integrative complexity.[24] This definition suggests most individuals, if not all, could espouse an extremist ideological position. However, could most perpetrate violence? Psychologists Reicher and Haslam note that studies by Milgram and Zimbardo "proved that virtually anyone, under the right—or rather the wrong—circumstances, could be led to perpetrate acts of extreme violence."[25] Accordingly, I SEE! Scotland is the first integrative complexity intervention designed to reduce and prevent sectarianism, while resourcing wider, diverse communities for increased psychosocial health. This led to a complex theoretical framework and intervention design.

---

http://psycnet.apa.org/journals/psp/57/4/632/; Philip E. Tetlock, David Armor, and Randall S. Peterson, "The Slavery Debate in Antebellum America: Cognitive Style, Value Conflict, and the Limits of Compromise," *Journal of Personality and Social Psychology* 66 (1994): 115-126, available at: *http://psycnet.apa.org/journals/psp/66/1/115/*.
[22] Tetlock, Armor, and Peterson, "The Slavery Debate."
[23] Increased awareness of psychological bias of naïve realism enabled participants to identify and overcome it in themselves; Meytal Nasie, Daniel Bar-Tal, Ruthie Pilskin, Emin Nahhas and Eran Halperin, "Overcoming the Barrier of Narrative Adherence in Conflicts Through Awareness of the Psychological Bias of Naïve Realism" *Personality and Social Psychology Bulletin* 40 (11, 2014): 1543-1556, available at:
https://www.researchgate.net/publication/264467920_Overcoming_the_Barrier_of_Narrative_Adherence_in_Conflicts_Through_Awareness_of_the_Psychological_Bias_of_Naive_Realism.
[24] Suedfeld, Cross, and Logan, "Can Thematic Content Analysis Separate."
[25] Stephen D. Reicher and S. Alexander Haslam, "Fueling extremes," *Scientific American Mind* 27 (May/June 2016): 35-39, available at:
http://www.nature.com/scientificamericanmind/journal/v27/n3/full/scientificamericanmind0516-34.html.

www.manaraa.com

Previous integrative complexity interventions focused on enabling participants to access a wider range of their own values to support increased cognitive complexity.[26] Polarised groups often focus on one most important value, denying any validity in the other group's most important value. Groups espousing violent extremist ideologies use this to reinforce opposition against all other groups (e.g., only *we* honour the most important value). Helping participants to become more aware of a wider range of their own values lays the foundation for more complex thinking.

The desire to honour or express two important values in tension (e.g., security for one's preferred group *and* universal care for people in general) motivates and fuels the exertion of thinking with greater complexity in order to find a way to integrate both values in a proposed action.[27] While increasing participants' awareness of their value hierarchy was part of the theoretical background for I SEE! Scotland, increasing other forms of self-awareness came to the foreground and included other- and systems-awareness: meta-cognition, embodied cognition, social cognition, meta-affective reasoning, personal, and social identity, and the interdependence of social narrative frameworks via feedback loops.[28] However, the diversity of participants and their life situations alongside delivery constraints (described below) necessitated a relatively simple assessment design with two hypotheses about increases in integrative complexity and resilience tested with as light a burden for participants as possible.

Intervention design

A theory-based intervention designed as action research (field research addressing "real world problems" with societal implications while contributing to theory and improving methodology) and tested with a very diverse sample, I SEE! Scotland sessions focus on currently debated topics

---

[26] Philip Tetlock, "A value pluralism model of ideological reasoning," *Journal of Personality and Social Psychology* 50:4 (1986): 819-827, doi: 10.1037/0022-3514.50.4.819.

[27] Ibid.; Shalom H. Schwartz and Klaus Boehnke, "Evaluating the structure of human values with confirmatory factor analysis," *Journal of Research in Personality* 38 (2004): 230-255, doi.org/10.1016/S0092-6566(03)00069-2.

[28] Jessica Shaw, Kate McLean, Bruce Taylor, Kevin Swartout, Katie Queria, "Beyond resilience: Why we need to look at systems too," *Psychology of Violence* 6 (January 6, 2016): 34-41, available at:
https://www.researchgate.net/publication/290220904_Beyond_resilience_Why_we_need_to_look_at_systems_too.

www.manaraa.com

with underlying tensions in Scotland.[29] Enfolded in the broad topics are issues related to sectarianism such as immigration, gender, and marching. Their relevance includes but goes beyond Catholic-Protestant sectarianism, thus reducing the likelihood of defensive reactance among participants *and* engaging those who feel untouched by sectarianism.[30] Role-plays engage participants in conflict scenarios that tap into underlying tensions. Throughout the role-plays, trained co-facilitators prompt participants to notice and explore bodily experiences, emotions, thoughts, and behaviours interpreted through a narrowed and widening integrative complexity lens, including basic information about neuro-bio-socio processes.[31]

Drawing on neuroscience research, high integrative complexity seems to indicate prefrontal activation, supporting emotions and thoughts that are more complex; this activation is in tension with limbic activation, which supports rapid, inflexible, protective, and defensive emotions, thoughts (low integrative complexity), and reactions such as fight, flight, and freeze.[32]

---

[29] Action research includes many variations, five key elements are: participatory (whether in all aspects or specific parts of the research), co-learning environment with multiple ways of learning, reflective learning to empower and develop critical consciousness about systems and structures, practical and enabling process, and commitment to action (incite change), ibid., 38. See also Robert Sommer, "From Mental Hospital Reform in Saskatchewan to Community Building in California," *Canadian Psychology* 40 (February, 1999): 47-55, available at: *https://www.researchgate.net/publication/232573223_Action_Research_From_ment al_hospital_reform_in_Saskatchewan_to_community_building_in_California*. While a review of our field work is beyond the scope of this article, the broad topics and underlying tensions were identified through face-to-face interviews, focus groups, consultations with a variety of practitioners involved in tackling sectarianism, civic forum discussions, creative exhibits/installations/performances, as well as literature reviews.
[30] Somewhat similar to work by Evan Halperin who avoids mentioning specifics or opposing factions involved in the Israeli-Palestinian conflict, see Dan Jones, "Untying the Hardest Knots," *The Psychologist* 29:9 (2016): 690-694, available at: *https://thepsychologist.bps.org.uk/volume-29/september/untying-hardest-knots*.
[31] Along with this basic information, participants are provided "low glycaemic index" refreshments to support cognitive functioning; very high sugar/ caffeine drinks and snacks are prohibited during the sessions. See David Benton, Marie-Pierre Ruffin, Taous Lassel, Samantha Nabb, Michaël Messaoudi, Sophie Vinoy, Didier Desor, Vincent Lang, "The Delivery Rate of Dietary Carbohydrates Affects Cognitive Performance in Both Rats and Humans," *Psychopharmocology* 166 (February 1, 2003): 86-90, available at: *http://link.springer.com/article/10.1007%2Fs00213-002-1334-5;* Simon B. Cooper, Stephen Bandelow, Maria L. Nute, John G. Morris, Mary E. Neville, "Breakfast Glycaemic Index and Exercise: Combined Effects on Adolescents' Cognition," *Physiology and Behaviour* 139 (February 2015): 104-111, available at: *https://www.researchgate.net/publication/268750980_Breakfast_glycaemic_index_a nd_exercise_Combined_effects_on_adolescents'_cognition*.
[32] Jason Spitalletta, "Psychological Bases of Aggression: The Role of the Moral Emotions in Radicalisation," and Pamela Rutledge and Jerri Lyn Hodge, "Bridging Research and Practice: Using Proactive Narratives," *White Paper on Assessing and Anticipating*

Responses representing complex (high integrative complexity) thinking show less reactance and relatively slower, more complex responses like reflection and empathy.[33] Low integrative complexity thinking may indicate prefrontal inhibition, or limbic activation that overwhelms prefrontal activation.[34] Based on existing research, we hypothesised that learning about brain and body processes involved in social conflict would support self-management through increased self, other, and systems awareness.[35]

For example, the broad topic of Life in Scotland involves tension between belonging to the group *and* being an independent individual, a human tension negotiated daily that can become a life and death matter when disagreeing with or refusing to participate in group-mandated behaviours. In role, participants inhabit polarised views. They eventually work through a conflict scenario to an unscripted resolution using strategies that support flexible, open (high integrative complexity) thinking, such as finding shared values.[36] As participants notice and reflect on their experiences, the co-facilitators apply an integrative complexity hermeneutic expressed with words, multi-media, and gestures linking psychological and social processes. A meaning making practice emerges as participants engage in meta-cognition (self-regulation interwoven with awareness, consciousness, and mental states, or "how we think about thinking") with a new vocabulary and constructs that connect with experience.[37] Using *Theatre of the Oppressed* pedagogy, co-

---

Threats to US Security and Interests: A Bio-Psycho-Social Science Approach to Understanding the Emergence of and Mitigating Violence and Terrorism (Washington, D.C.: A Strategic Multi-Layer (SMA) Periodic Publication, March 2016): 43-50, 150-158, available at: *http://www.birmingham.ac.uk/Documents/college-social-sciences/government-society/iccs/policy/anticipating-security-threats.pdf*. See suggested links between neuroscience and integrative complexity in Sara Savage, "Head and Heart in Preventing Religious Radicalization," Fraser Watts and Geoff Dumbreck (Eds) *Head and Heart: Perspectives from Religion and Psychology* (Templeton Press, 2013).

[33] Stephanie D. Preston and Frans B. M. De Waal, "Empathy: Its Ultimate and Proximate Bases," *Behavioral and Brain Sciences* 25:1 (2002):1-20 available at: http://cogprints.org/1042/1/preston_de_waal.html; Spitalletta, "Psychological Bases of Aggression."

[34] Ibid., Spitalletta, "Psychological Bases of Aggression."

[35] Preston and De Wal, "Empathy;" Eran Halperin, Roni Porat, Maya Tamin, James Gross, "Can Emotion Regulation Change Political Attitudes in Intractable Conflicts?," *Psychological Science* 24 (1, 2013): 106-111, available at: https://www.psychologicalscience.org/news/releases/reappraisal-defuses-strong-emotional-responses-to-israel-palestine-conflict.html

[36] Baker-Brown, et al., *"Coding Manual."*

[37] Anastasia Efklides, "Metacognition: Defining its Facets and Levels of Functioning in Relation to Self-Regulation and Co-Regulation," *European Psychologist* 13:4 (2008): 277-287, available at: *https://www.researchgate.net/publication/232452693_Metacognition_Defining_Its_*

www.manaraa.com

facilitators ask participants, "Is this true to life?," "Would this really happen?," "What needs to change to make it true to life?," and "Show us!"[38] In these multi-layered ways, the course structure invites participants to create their own intentional narratives, or *re-frames* of conflicted situations that express integrative complexity management capacities (moving from inflexible, closed thinking to flexible, open thinking about and with an opposed group).[39] To bridge learning from the intervention into life outside the intervention, the role-plays provide opportunities to practice inhabiting the new narrative even when provoked to return to old, familiar narratives. These methods support the development of individual and group critical consciousness about systems and structures of meaning making.

Re-framing topics and issues as a group has the potential to shift participant thinking about themselves and their group memberships. While not tested directly in this research, we suggest that structured exploration of diverse views on broad topics (Life in Scotland, Feeling Good, Close Relationships, Confidence, Emotions, Learning, and Values) not only leverages increases in integrative complexity management. We suggest such structured exploration of diverse views also expands participants' social identity complexity (SIC) from one dominant identity (e.g., Protestant, Catholic, non-religious) to include more diverse identities.[40]

Like low and high integrative complexity, low and high SIC each has pros and cons. Those with low SIC belong to groups with high entitativity (homogenous groups viewed as pure and unified, with sharp boundaries, clear structure, shared goals). Belonging to these groups reduces uncertainty, organises life, and provides a type of safety; members feel right and justified in their views and goals. However, high SIC correlates with high integrative

---

Facets_and_Levels_of_Functioning_in_Relation_to_Self-Regulation_and_Co-regulation.

[38] Boal, Augusto, *Theatre of the Oppressed* (Sidmouth, England: Pluto Press, 2008).

[39] Eran Halperin, "Emotional Barriers to Peace: Emotions and Public Opinion of Jewish Israelis About the Peace Process in the Middle East," *Peace and Conflict* 17 (2011): 22–45, available at: *http://www.tandfonline.com/doi/abs/10.1080/10781919.2010.487862*; Lynn Davies, "Security, Extremism and Education: Safeguarding or Surveillance?," *British Journal of Educational Studies* 64:1 (2016): 1-19, see 13-14, available at: *http://dx.doi.org/10.1080/00071005.2015.1107022.*

[40] Sonia Roccas and Marilynn Brewer, "Social Identity Complexity," *Personality and Social Psychology Review* 6:2 (2002): 88-105, available at: *http://psr.sagepub.com/content/6/2/88.abstract.*

www.manaraa.com

complexity, openness, and inter-group harmony.[41] Given the correlation between SIC and integrative complexity, and to keep the assessment burden as low as possible, in this study we used integrative complexity measures as indicative measures for SIC.

The Advisory Group notes that in Scotland, "[s]ectarianism primarily exists in the quality of relationships that grow between whole communities and children."[42] Multi-levelled dysfunctional feedback loops can reinforce and perpetuate a spectrum of behaviours, from polite to violent expressions of sectarianism (creating "an ethos of conflict").[43] Thus, we hypothesised that replacing and/or removing dysfunctional feedback loops that perpetuate sectarian enmity required social experimentation of new ways of communicating that create *intentional* feedback loops in the safety of symbolic languages like role-play.[44] Role-play exercises can reproduce the effects of minimal group studies, quickly eliciting in group-out group biases even when participants are assigned randomly to groups. Research on the neural correlates of inter-group antagonisms show reduced neural activity supporting emotional regulation and behavioural flexibility, increased psychological distance, more aggressive behaviour, and contempt toward an opponent (rather than empathy, understood as feeling with or concern for an opponent).[45] While our research did not involve neurological scans or biological measures, we hypothesise that simulating inter-group antagonism through role-play elicits similar patterns in the brain.

After recognising the experience of these patterns, the next exercises enable participants (in role) to transform them into new, pro-social patterns: co-

---

[41] Ibid.; Marilynn B. Brewer and K. P. Pierce, "Social Identity Complexity and Outgroup Tolerance," *Personality and Social Psychology Bulletin* 31 (2005): 428-437, available at: *http://www.the5f.com/public/social%20identity%20complexity%201.pdf*.

[42] The Scottish Government, *Tackling Sectarianism,*17

[43] Jones, "Untying the Hardest Knots," 694; Boaz Hameiri, Roni Porat, Daniel Bar-Tel, Atara Bieler, Eran Halperin, "Paradoxical Thinking as a New Avenue of Intervention to Promote Peace," *PNAS Proceedings of the National Academy of Sciences of the United States of America* 111:30 (2014): 10996-11001, *doi.org/10.1073/pnas.140705511*.

[44] See note 12 above; ibid.

[45] See brief overview of minimal group paradigm and findings that minimal group distinctions can elicit different mental representation that lead to ingroup favouritism, Kyle Ratner, Ron Dotsch, Daniel H. J. Wigboldus, Ad van Knippenberg, and David M. Amodio, "Visualizing Minimal Ingroup and Outgroup Faces: Implications for Impressions, Attitudes, and Behaviour" *Journal of Personality and Social Psychology* 106:6 (2014): 897–911, available at: *https://www.ncbi.nlm.nih.gov/pubmed/24841095*; Diane DiEuliis, William Casebeer, and James Giordano, "The Role of Emotions In Human Behavior—Perspectives From Neuroscience And Cognitive Psychology," 30-36; Spitaletta, "Psychological Bases of Aggression."

facilitator prompts encourage awareness of intentional, flexible, open (high integrative complexity) feelings, thoughts, and behaviours, enabling participants to find pro-social ways through polarised conflicts. These second (high integrative complexity) simulation experiences may strengthen and restore neural pathways that support behaviours like resilience.[46] Participatory theatre methods structure these social experiences to build self and collective efficacy and resilience, as well as empathic resonance.[47] Expanding participants' circle of concern to include those outside their preferred groups not only improves social interaction, but also benefits individual well-being and affect.[48] In contrast to engaging participants physically, cognitively, emotionally, and socially, efforts to reverse and prevent violent extremisms that rely mainly on direct challenge via logical arguments (e.g., sectarian behaviour is dangerous, therefore do not engage in it) can be ineffective or even backfire.[49] We chose an action research design to engage with participants experientially on multiple levels. The aim was to increase self, other, and systems awareness and critical consciousness to support integrative complexity gains as a form of self-management, and new meaning making practices for community psychosocial health. Increased integrative complexity management capacities empower participants to

---

[46] Participant comments during these exercises indicated that they felt these emotions, while any empathy for the opposed group was accompanied by alienation from their own group; Ibid.; J. D. Pardo, "Neurobiology of Resilience to Trauma," *International Society for Traumatic Stress Studies 26th Annual Meeting: Translation, Collaboration, and Mutual Learning* (Montreal, Canada, November 4, 2010).

[47] Michal D. Harari, "To Be On Stage Means to Be Alive: Theatre work with Education Undergraduates as a Promoter of Students' Mental Resilience," *International conference "Education, Reflection, Development,"* ERD 2015 (Cluj-Napoca, Romania: July 3-4, 2015). *doi:10.1016/j.sbspro.2015.11.272*; Claus Lamm and Jasminka Majdandzic, "The Role of Shared Neural Activations, Mirror Neurons, and Morality in Empathy—A Critical Comment," *Neuroscience Research* 90 (2015): 15-24, available at: *http://www.sciencedirect.com/science/article/pii/S0168010214002314*; Davies, "Security, Extremism," 11; Davies, *Journal of Strategic Security* 9:4 (2016).

[48] Ibid.

[49] Victoria Romero, "How ISIL Recruitment Tactics Target the Adolescent Brain," Rachel Wurzman and William Casebeer, "Predicting and Reducing Hostility: Insights from Cognitive Models and Cognitive Behavioural Therapy" and Christophe Morin, "The Urgency to Shift Paradigm On the War Against ISIS in The Narrative Space," *White Paper on Assessing and Anticipating Threats to US Security and Interests: A Bio-Psycho-Social Science Approach to Understanding the Emergence of and Mitigating Violence and Terrorism* (Washington, D.C.: A Strategic Multi-Layer (SMA) Periodic Publication, March 2016): 37-42, 128-145, 159-165, available at: *http://nsiteam.com/social/wp-content/uploads/2015/12/Anticipating-Threats-to-US-Security-Interests-MAR-2016.pdf*; Dounia Bouzar, "Escaping Radicalism," *Scientific American Mind* 27 (May/June, 2016): 41-43, available at: *http://www.nature.com/scientificamericanmind/journal/v27/n3/full/scientificamericanmind0516-40.html?cookies=accepted*.

www.manaraa.com

access a wider range of response choices in the face of difference, disagreement and opposition.

Method

Sample and Recruitment

Study One

Our first hypothesis was tested in Study One (over three rounds of funding, 2012-2015): that a very diverse participant sample would emerge from I SEE! Scotland with measurable increases in integrative complexity toward self-identified opposed groups, and that self-reports of change would indicate increased self-management. To test this hypothesis, we recruited a diverse sample of one hundred and four participants through advertising (general on-line sites, job centre, national professional networks, community centres, community worker networks) and meetings with educational and custodial bodies. Participants were not identified or recruited for sectarian beliefs or behaviours, although some geographical areas of recruitment were known to have sectarian activities related to football, marching, and civic disruption. The SG aimed to increase their understanding about locations and forms of sectarian attitudes and behaviours (from polite to violent), motivating us to deliver I SEE! Scotland wherever invited or given permission. Presented as a life skills course with a Certificate of Completion, participation was free.

One hundred and four participants (in twelve sub-groups of four to fifteen participants) went through I SEE! Scotland aged from thirteen to sixty-five (mean 32.64), forty-seven males, fifty-seven females, representing the following demographics:

- secondary school students (not at risk, achievers, most disruptive, excluded from mainstream schools, vulnerable)
- under/ non achieving young adults returning to education
- professionals (mediators, community workers, prison officers, secondary school teachers, learning support staff, retired)
- adults with barriers to participation in society (unemployed, prisoners preparing for release, recovering addicts)

Assessment Instruments and Procedure

All participants provided informed written consent. They were assigned anonymous numbers for all assessment paperwork and asked to respond to a PCT (Paragraph Completion Test, the gold standard for integrative

complexity assessment.[50] Before and after the intervention, for pre-post comparisons, participants identified in single words or phrases:

1. The community with which I most identify is… (i.e., in-group)
2. The community that is most opposed or "other" to my community is… (i.e., out-group)

Immediately below 1. and 2., two paragraph prompts asked:

3. When I think about my community….
4. When I think about the Other community…,

These prompts are followed by at least a half page of blank space for written responses. Participants were prepared to complete the paragraphs using the think aloud method, to reduce self-censorship and concern for spelling and grammar, and then offered as much time as needed to write as much as desired.[51]

Two qualified integrative complexity coders using the cross-culturally validated frame of integrative complexity coding scored participant responses.[52] Each coder's scores were compared for inter-coder reliability. A third integrative complexity coder coded a representative sample of all responses to check further for inter-coder reliability. As a group intervention, our analytic strategy was to compare matched pairs and aggregate by sub-group and as one group.[53] Integrative complexity coders scored four hundred and twelve completed paragraphs or data points: one hundred and three participants times four (two pre- and two post-completed paragraphs) equals four hundred and twelve. (One participant of the one hundred and twelve participants did not complete the post-test, but gave an end of intervention presentation, see below.)

---

[50] Peter Suedfeld and Philip. E. Tetlock, "Integrative Complexity at Forty: Steps Towards Resolving the Scoring Dilemma," *Political Psychology* 35:5 (2014): 597-723, available at: *http://onlinelibrary.wiley.com/doi/10.1111/pops.12206/abstract.*
[51] K. Anders Ericsson and Herbert A. Simon, *Protocol Analysis: Verbal Reports as Data* (Rev. ed.), (Cambridge, MA: MIT Press, 1993).
[52] Baker-Brown et al., *"Coding Manual."*
[53] Roni Porat, Eran Halperin, and Maya Tamin, "What We Want is What We Get: Group-Based Emotional Preferences and Conflict Resolution," *Journal of Personality and Social Psychology* 110 (Summer, 2016): 167-190, available at: *https://www.ncbi.nlm.nih.gov/pubmed/26785061.*

www.manaraa.com

Since integrative complexity measures the structure of thinking (*how* something is stated, rather than what is stated), which occurs at *a less than conscious level*, integrative complexity scores are not easily faked. While participants might attempt some impression management, the resulting integrative complexity increases are only incremental and non-sustainable, detectable by context. Thus, participants can apply what they have learned without producing purely socially desirable results.[54]

Presentations A: During the eighth and final session, all participants made end of intervention oral presentations in response to three questions:

- What has learning about IC (integrative complexity) meant to me?
- How am I using it (with examples)?
- What difference is it making (with examples)?

Presentations were audio recorded, anonymised during transcription (four hundred and six minutes (four hours, forty-six minutes) and thirty seconds total), and integrative complexity coded by two coders. For inter-coder reliability, a third coder scored a representative sample, serving as a second post-intervention integrative complexity measure.

Presentations B: Participants' oral presentations also served as self-reports while furthering the learning process by:

- Continuing to integrate learning experience with personal narratives, begun during the sessions and furthered through reflective preparation for the presentation, and
- Creating a public testimonial of experiences and intentions regarding learning.

The public nature of the presentation may have mitigated any pressure to over-state learning or intentions since participants were aware of one another's questions and challenges throughout the course. Table 1 summarises the instruments and procedure used in Study One.

---

[54] Maureen McBride, "What Works to Reduce Prejudice and Discrimination? A Review of Evidence," *Social Justice Series* (St Andrews House, Edinburgh: Scottish Centre for Crime & Justice Research, The Scottish Government: 2015): 7, 37, available at: *http://www.gov.scot/Resource/0048/00487370.pdf*.

www.manaraa.com

Table 1. Study One Assessment

Study one	Pre course	Post course
PCTs: Anonymous written responses to questions about "in" and "out" groups	Compared for change in cognitive complexity about these groups, using cross-culturally validated frame for integrative complexity coding	
		Anonymised Oral Presentations (audio recorded, transcribed) A: Second end of course integrative complexity measure to correlate with PCT post measure B: Self-reports of learning

Source: Authors

Study Two

Our second hypothesis tested in Study Two (third funding, 2015-2016) was that very diverse participants would emerge from I SEE! Scotland with measurable increases in resilience. This hypothesis was based on participant self-reports, including two follow-up interviews, and from theorising about the capacities and skills increased by the course.[55] We tested this hypothesis with the final twenty-eight (of one hundred and four) participants using a second pre-post measure, the cross-culturally validated twenty-five-item Connor-Davidson Resilience Scale (CD-RISC).[56]

Results

Study One

PCTs: Integrative Complexity Measures

Aggregated matched pair responses about participants' self-identified out group showed significant pre–post integrative complexity gains, from 1.3 before the intervention to 1.84 (t-test < 0.00, Wilcoxon < 0.00) with a large effect size (Cohen's d = 0.7), predicting more peaceful outcomes to inter-group conflict. Putting aside data from twenty-five participants with reported

---

[55] Two interviews conducted without preparation or rehearsal: 1) 2014 independent interview conducted by Patrick Mbullu on behalf of the SG with two formerly "disruptive" secondary school students, six months after participating in I SEE! Scotland, not for public release; 2) 2015 filmed interview of students and staff twenty-two months after participation, see note 1 above.
[56] Jonathan R. T. Davidson and Katherine M. Connor, "Connor-Davidson Resilience Scale (CD-RISC) Manual," available at: *http://www.connordavidson-resiliencescale.com/user-guide.php*.

69

and observed literacy and test-taking issues, the remaining seventy-nine participants showed significant integrative complexity gains from 1.38 to 2.03 (*t*-test < 0.00, Wilcoxon < 0.00) with a large effect size (Cohen's *d* = 0.8).

Males started with slightly lower integrative complexity scores, while the scale of integrative complexity increases was equal for males and females. Integrative complexity gains on the PCTs were greatest among those aged twenty to fifty (the age range of participants without considerable literacy and test taking issues). Increases in integrative complexity scores can be difficult to capture under test conditions (e.g., via a PCT), yet here, written PCTs from a very diverse sample showed statistically significant increases in integrative complexity and replicated results from other integrative complexity interventions with different samples, conflicts, and contexts, pointing to the robustness of the effect.[57]

Presentations A: Integrative complexity measures

The second post-intervention integrative complexity measure cohered with the significant PCT results. Presentations by one hundred and four participants were integrative complexity coded and then aggregated. The mean integrative complexity score was 3.11 (indicating flexible, open thinking, finding legitimacy in other viewpoints despite disagreement, predicting more peaceful outcomes to inter-group conflict). These oral results are notable in light of the potentially uncomfortable and unfamiliar task of speaking publicly about *personal* change (participant situations included unemployed, disruptive/vulnerable excluded secondary school students, community workers, teachers, professional network members, recovering addicts, prisoners).

Integrative complexity inter-coder reliability criteria were assessed for the first fifteen participants by calculating inter-coder reliability scores (kappa and alpha levels) between two integrative complexity coders, both coding 100 percent of the verbal data and coding blind to the pre-post intervention conditions. Because the sample was small, the kappa levels were just below significance for the written data, but the alpha levels for inter-coder reliability were good (*alpha* = 0.80). For the oral data, the inter-coder reliability according to *kappa* = 0.9541 (p < 0.0001), reflecting a very good level of reliability. For the remaining participants, two coders coded independently

---

[57] Liht and Savage, "Preventing Violent Extremism;" Savage, Kahn, Liht, "Preventing Violent Extremism in Kenya;" Boyd-MacMillan, "Increasing cognitive complexity and collaboration across communities: Being Muslim Being Scottish," *Journal of Strategic Security* 9:4 (2016).

www.manaraa.com

and then conferred to agree on scores. A third integrative complexity coder, blind to participants and pre-post intervention conditions, coded a representative sample (twenty to one hundred percent), confirming all agreed scores.

Presentations B: Self-reports

All presentations were read to identify dominant themes. Participants spoke about increased self-management skills, improvements in relationships (family, peer, work-related), and increased confidence in handling difficult situations (e.g., disagreements, conflicts, provocations) in ways that led to pro-social outcomes. Anonymised transcripts of presentations available upon request; representative quotations appear in the discussion.

Study Two

Resilience

Comparisons of pre-post resilience measures of the final twenty-eight participants (community workers, prisoners, recovering drug addicts, vulnerable and excluded secondary school students, achieving secondary school students, teachers, learning support staff) showed a statistically significant increase (*t*-test < 0.02) in resilience. The effect size (seven percent increase) in mean scores is comparable to, and in some instances exceeds, results achieved after interventions specifically aimed at stress management and resilience.[58] Comparisons of pre-post resilience measures for eight participants (teachers and learning support staff) reveal a very large statistically significant increase (*t*-test < 0.05; Cohen's *d* < 0.74). The effect size indicates the change would have been observable by peers, friends, and family members.

---

[58] Xiaonan Yu, Sunita M. Stewart, Jolian P.L. Chui, Joy L.Y. Ho, Anthony C.H. Li, and Tai Hing Lam, "A Pilot Randomized Controlled Trial to Decrease Adaptation Difficulties in Chinese New Immigrants to Hong Kong," *Behaviour Therapy* 45 (2014): 137-152, available at: http://www.sciencedirect.com/science/article/pii/S000578941300097X; Amit Sood, Varun Sharma, Darrell R. Schroeder, and Brian Gorman, "Stress Management and Resiliency Training (SMART) Program Among Department of Radiology Faculty: A Pilot Randomized Clinical Trial," *Explore (NY)* 10 (2014): 358-363, available at: https://www.ncbi.nlm.nih.gov/pubmed/25443423 ; Abdelazizt A. Thabet, A. Abu Tawahina, Eyad El Sarraj, Panos Vostanis, "Evaluation of a Community Intervention for Women Victims of Domestic Violence in the Gaza Strip," *International Journal of Peace and Development Studies* 2 (2011): 88-95, available at: *http://www.academicjournals.org/article/article1381911402_Thabet%20%20et%20%2 0al.pdf*; Stefan Vetter, Igor Dulaev, Mario Mueller, Robert R Henley, William T Gallo, and Zalina Kanukova, "Impact of Resilience Enhancing Programs on Youth Surviving the Beslan School Siege," *Child and Adolescent Psychiatry and Mental Health* 4:11 (2010). Doi:10.1186/1753-2000-4-11.

www.manaraa.com

Discussion

Study One comparisons of pre-post integrative complexity scores on written data (PCTs) from a very diverse sample show significant integrative complexity gains. These gains cohere with the strong post intervention integrative complexity scores on anonymised transcribed oral data (post-intervention presentations). Study Two comparisons of pre–post resilience scores for the final twenty-eight participants show significant increases in resilience. Although not identified or recruited for sectarian beliefs or behaviours, sixty-two percent of all participants (sixty-four of one hundred and four; one participant made an oral presentation but did not complete the written post-test) named Catholics, Protestants, religious, or non-religious as their in and/or outgroup. This indicates that sectarian-related issues were socially salient for over half. In their presentations (see sidebars of representative quotations), all participants mentioned increased self-management and improved relationships indicating that integrative complexity gains were relevant to all participants regardless of sectarian salience. The results are heartening. The facilitator delivering to a participant group was not always an optimal match in terms of additional knowledge or experience (due to scheduling and location constraints).

Facilitators for nine of twelve sub-groups (seventy-five percent) were community members freshly trained to administer assessment instruments and deliver the new intervention. Participant or organisational constraints often required delivery schedule changes that were less than ideal pedagogically. For example, sixteen hours delivered intensively over three days. Alternatively, two-hour sessions broken up into one-hour slots delivered over twenty-two weeks, with breaks. Despite such real-world variables that are part of action research, the results replicate those from other IC (Integrative Complexity) Thinking interventions (also carried out as action research).[59] We suggest that these results advance not only the science of tackling sectarianism but offer insights for promoting community psychosocial health through increased integrative complexity management.

---

[59] Liht and Savage, "Preventing Violent Extremism;" Savage, Kahn, Liht, "Preventing Violent Extremism in Kenya;" Boyd-MacMillan, "Increasing cognitive complexity," *Journal of Strategic Security* 9:4 (2016).

www.manaraa.com

Two informal follow-up interviews six months and twenty-two months after intervention (both without rehearsal or preparation, the first an independent interview on behalf of the SG) with two secondary students and a school staff member revealed on-going improvements in academic achievement, social relations, confidence, staff-student support, and self-efficacy.[60] Further research is required on the processes involved in integrative complexity management and integrative complexity interventions and their outcomes, but based on this research we suggest the following:

Cognitive reappraisal training has been found to enhance negative emotion regulation, eliciting hope and increasing pro-social engagement with adversaries.[61] Similarly, our integrative complexity intervention resulted in a reappraisal of participants' self-identified out-groups, using more open, flexible thinking, predicting more pro-social engagement. In addition, as in participant quotations (see sidebars), self-reports describe increased cognitive management and emotion regulation. Emotions inter-relate with cognition, shaping how we think about our social world, affecting what we notice, pay attention to, and our interpretations.[62] Therefore, integrative complexity measures should access emotion regulation as well as cognitive management. Future research will test specifically for emotion regulation increases.

Participant Presentations: Quotes

Before I would just jump in there, argue, start fighting. Now, I would take time out and I would talk it through.

I'm a prisoner and getting out of jail...and when I have conflicting opinions with other people, I can now listen to their side of it and think about where they're coming from. And if they're upset I know how to deal with it, I can... maybe even calm them down a wee bit... And I think that's amazing just to be able to do that ... I've got more control...of my emotions like when I'm having a debate with something that could easily escalate into a big argument... but now I can control that...I can stop from getting so worked up... I can maybe even stop the other person getting so worked up.

I don't get as frustrated about things because I can see where other people are coming from, 'cause my group— people— they just jump on a bandwagon about certain things and we'll all be on one side of stuff. Whereas I can sit back and I can see... and I won't get into the arguments as much.

When you're talking with someone and they disagree with you on some fundamental level, when you keep that [what they have experienced in life] in the back of your mind it makes the conversation much more peaceful, I've found.

I get on with my pals a lot better. I used to just think I was always right...I started to listen to what they're saying.

---

[60] See note 55, above.
[61] Eran Halperin and James J. Gross, "Emotion Regulation in Violent Conflict: Reappraisal, Hope, and Support for Humanitarian Aid to the Opponent in Wartime," *Cognition and Emotion* 5:7 (2011): 1228- 1236, available at: *https://www.ncbi.nlm.nih.gov/pubmed/22017615*.
[62] DiEuliis, Casebeer, Giordano, "The Role of Emotions."

www.manaraa.com

Repeated experiences of achieving non-scripted resolutions to role-play conflicts are intended to elicit hope and increase self-efficacy about repeating such successes outside of the intervention context, emphasised with pointed questions, e.g., is this true to life? Again, as in participant quotations (sidebars), participants self-reported increased hope about and pro-social engagement during conflict. Results from study two with diverse participants (twenty-eight of one hundred and four) show that increases in resilience (measured by the CD-RISC) cohere with the oral reports of participants' experiences (during end of intervention presentations). While further research is needed, the specific CD-RISC items that account for the strongest gains in resilience scores are those primarily pertaining to self-efficacy and emotion regulation.

> **Participant Presentations: Quotes**
>
> *Sometimes I have been using it just so that I could like avoid an argument with one of my friends. I don't have to innocently jump in. I can see where they are coming from…it just meant that I didn't just jump right into their line of fire.*
>
> *Looking at why I feel the way I feel and where I stand with something and seeing that that choice for me doesn't make everybody else's choice wrong it just means that's what I hold as a value.*
>
> *I'm stepping back, listening to people's views. And there's always common ground, ya know, to be found I think. And, and looking for it… and making that kind of effort to.*
>
> *It's more about compromising and negotiating. It's not about challenging…it's about talking.*
>
> *It makes me stop and think more critically when making a decision that may impact someone else's well-being or their state of mind…This has made me feel in better control of my thoughts…I take more time in reflecting, in situations that need addressed, before reacting.*

Resilience can be defined as the ability or process of thriving or positively adapting in the face of adversity.[63] Certain personal qualities, social resources, and environmental factors have been shown to promote thriving in the face of stress and buffer against the negative outcomes of adversity: persistence/ tenacity, strong sense of self-efficacy, emotional and cognitive control under pressure, adaptability, sense of control (related to a growth mind-set), sense of meaning/purpose, and social supports. While these factors certainly interact, each one offers something unique for effective coping. We suggest that many are nurtured or enhanced through the design of I SEE! Scotland.

Group exercises focusing on values enhance a sense of purpose; exercises promoting emotion regulation during a conflict develop emotional and

---

[63] Connor and Davidson, "Development of a New Resilience Scale;" Suniya S. Luthar, Dante Cicchettiand Bronwyn Becker, "The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work," *Child Development* 71:3 (2000): 543–562, available at: *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885202/*.

www.manaraa.com

cognitive control under pressure. Intervention topics like confidence and learning foster a growth mind-set and self-efficacy; malleable mind-sets elicit hope and support for peace building.[64] Humour, presented as a resource for emotion regulation and self-management, also builds resilience. Participation guidelines (e.g., participants are supported to think for themselves, listen to each other and show respect) create safety for engagement with challenging and controversial topics, further enhancing self-efficacy.[65] Participants commented that because of the course guidelines they "felt safe" since "no-one was telling me I was wrong all the time" and "I could be honest and express my views, my values."[66]

Along with increased cognitive management, emotion regulation, hope, and other factors related to resilience, a brief comment on social identity complexity (SIC) is worthwhile. The Advisory Group reported the finding that "substantial minorities felt that discrimination or harassment was a likely experience for both Catholics (35 percent) and Protestants (28 percent) in Scotland as a whole."[67] To compensate for feeling devalued individually and/or as a group, Catholics and Protestants may turn inward toward their own, creating highly entitative groups or internally homogeneous groups with strong boundaries, clear structure, and shared goals.[68] Low SIC (and low integrative complexity) members in conflicted groups can create dysfunctional feedback loops that reinforce and perpetuate destructive behaviours. Sectarianism "is strongly associated in some communities in Scotland with fear, usually based on experiences of threat, intimidation, or actual violence."[69] Lower integrative complexity can be a reaction to situational or personal uncertainty, leading to loosened ties with more diverse groups accompanied by strengthened ties with similar, overlapping groups, and a reaction to contact with members of the outgroup eliciting "distinctiveness threat" (the perception that an outgroup's similarities with an

---

[64] Smadar Cohen-Chen, Eran Halperin, Rirchad J. Crisp, and James J. Gross, "Hope in the Middle East: Malleability Beliefs, Hope, and the Willingness to Compromise for Peace," *Social Psychological and* Personality Science 5:1 (2014): 67-75, available at: *http://spp.sagepub.com/content/early/2013/04/22/1948550613484499*.

[65] See Andrews Fearon and Boyd-MacMillan, "Complexity Under Stress: Integrative Approaches to Overdetermined Vulnerabilities," *Journal of Strategic Security* 9:4 (2016).

[66] Quotations from secondary school and further education participants; see Davies, "Interrupting Extremism," 454.

[67] The Scottish Government, *Tackling Sectarianism*, p. 28.

[68] Fiona Grant and Michael A. Hogg, "Self-uncertainty, social identity prominence, and group identification," *Journal of Experimental Social Psychology* 48 (2012): 538-542, available at: *http://www.sciencedirect.com/science/article/pii/S002210311100268X*.

[69] The Scottish Government, *Tackling Sectarianism*, p. 15.

www.manaraa.com

in-group are a threat rather than common ground).[70] Distinctiveness threat, the loosening of ties with diverse groups, and strengthening of ties with highly entitative groups, coheres with Daesh recruitment pathways, including sectarian antagonism toward other Muslims.[71] As noted, high SIC correlates with high integrative complexity and inter-group harmony. While we did not directly measure SIC in this research, we suggest that the design of I SEE! Scotland structured interactions among participants representing opposing groups (Catholic, Protestant, religious, non-religious, other) to mitigate any perceived distinctiveness threat from sabotaging the positive effects of contact. Instead, because high integrative complexity involves finding links among but not eradicating differences, this capacity enables participants to find realistic, practical solutions with opponents that have integrity for all parties rather than creating a superficial false harmony. Collaborative creation of intentional feedback loops supports new relationships and behaviours among members of conflicted groups. These dynamics require further investigation in future research.[72]

Conclusion and future research

We cannot eliminate risk, but we can reduce it.[73] As every human brain organises incoming information, all are vulnerable to unrecognised, closed,

---

[70] Michael A. Hogg, Christy Meehan, and Jayne Farquharson, "The Solace of Radicalism: Self-uncertainty and Group Identification in the Face of Threat," *Journal of Experimental Social Psychology* 46 (2010): 1061-1066, available at: *http://www.sciencedirect.com/science/article/pii/S0022103110001216*; Donna Webster and Arie W. Kruglanski, "Individual Differences in Need for Cognitive Closure," *Journal of Personality and Social Psychology* 67 (1994): 1049-1062, available at: *http://psycnet.apa.org/journals/psp/67/6/1049/;* Barbara-Ann Mullin and Michael A. Hogg, "Dimensions of Subjective Uncertainty in Social Identification of Subject Uncertainty in Social Identification and Minimal Intergroup Discrimination," *British Journal of Social Psychology* 37 (1998): 345-365, available at: *http://onlinelibrary.wiley.com/doi/10.1111/j.2044-8309.1998.tb01176.x/abstract;jsessionid=E6F2C8D64754235BCAF948C069F3AA90.f04t02*; Grant and Hogg, "Self-uncertainty;" Katharina Schmid, Miles Hewstone, Nicole Tausch, Ed Cairns, and Joanne Hughes, "Antecedents and Consequences of Social Identity Theory: Intergroup Contact, Distinctiveness Threat, and Outgroup Attitudes," *Personality and Social Psychology Bulletin* 35 (2009): 1085-1098, available a: *http://psp.sagepub.com/content/35/8/1085.abstract*.

[71] Bouzar, "Escaping Radicalism."

[72] See Eolene Boyd-MacMillan, Claire Campbell, Andrea Furey, "An IC Intervention for Post-Conflict Northern Ireland Secondary Schools," *Journal of Strategic Security* 9:4 (2016).

[73] Michael Ungar, "Social Ecologies and Their Contribution to Resilience," *The Social Ecology of Resilience: A Handbook of Theory and Practice* (London: Springer, 2012), 13-32; Ami C. Carpenter, *Community Resilience to Sectarian Violence in Baghdad* (Springer: New York, 2014), available at: *http://link.springer.com/chapter/10.1007/978-1-4614-0586-3_2*.

www.manaraa.com

and entrenched thinking about others that gives rise to and supports dysfunctional feedback loops.[74] However, as shown by the results in this research, interpretative lenses of groups with very diverse levels of social participation, and even barriers to participation, can also adjust and adapt to new information, new levels of awareness, and new narratives, fostering more adaptive, pro-social feedback loops.[75] Our evaluation of I SEE! Scotland provides initial evidence that integrative complexity management capacities can be leveraged among very diverse demographics via an intervention designed to reflect a diffuse social ecology that includes polite and violent expressions of sectarianism alongside processes that leave people feeling untouched by sectarianism. This action research engaging participants from diverse communities on multiple levels to increase self, other, and systems awareness and critical consciousness resulted in increased integrative complexity management capacities and resilience. Increasing community resilience across diverse demographics (offering resources and helping people to access them) will build collective social efficacy for not only the reduction and prevention of destructive conflicts and extremisms, but also the promotion of community cohesion and psychosocial health.[76] As a broad measure of inter-related human processes, increased integrative complexity management capacities open up a wider range of response choices when facing difference, disagreement, and opposition.

Future integrative complexity interventions will trial peer-led learning, e.g., with student facilitators supported by staff.[77] Evaluations will test integrative complexity interventions with internal and external control groups, add measures for SIC, emotion regulation, empathy, alongside those for resilience, and incorporate neurological scans beside biological measures. An alternative to the PCT to measure integrative complexity with varied literacy levels will be developed and questionnaires will assess the generalisability of changes outside the test context (e.g., to the family, wider community). Formal follow-up materials for on-going support of integrative complexity management capacities will be designed and evaluated. While continuing to prioritise embodied, in person, group learning, we will experiment with digitised resources to reinforce face-to-face learning and increase scalability. From longitudinal measures, we anticipate that strengthened self, other, and systems awareness will continue to increase integrative complexity

---

[74] Iain McGilchrist, *The Master and His Emissary: The Divided Brain and the Making of the Western World* (New Haven, Connecticut: Yale University Press, 2009); Reicher and Haslam, "Fueling extremes."

[75] Ungar, "Social Ecologies."

[76] Ibid.

[77] See Boyd-MacMillan, Campbell, Furey, *Journal of Strategic Security* 9:4 (2016).

management capacities over time, enhancing self-regulation, creating feedback-loops that support pro-social behaviours, and building resilience on a collective as well as individual level to reduce sectarianism and other extremisms while promoting community psychosocial health.

www.manaraa.com