University of Bath

Alternative formats
If you require this document in an alternative format, please contact:
openaccess@bath.ac.uk

Reaching Consensus Promotes the Internalization of Commitment to Social Change

Emma F. Thomas, Flinders University

Craig McGarty, Western Sydney University

Avelie Stuart, University of Exeter

Laura G.E. Smith, University of Bath

Luc Bourgeois, University of Queensland

Correspondence can be addressed to: Emma F Thomas, School of Psychology, Flinders University, Adelaide, Australia. Emma.Thomas@flinders.edu.au.

Abstract

Solving the world's most pressing problems (climate change, global poverty) will require the commitment of large numbers of people. The current research draws upon the joint insights of self-determination theory and the social identity perspective to consider the mechanisms through which social interaction engenders commitment to social change. Participants ($N =$ 137) engaged in a small-group discussion to plan strategies for providing safe drinking water to people in developing countries. The degree of consensus within the interaction (regarding desired change and action to achieve that change) was measured. Multi-level path analysis showed that communication of consensus allows motives to become internalized, giving rise to new identities and commitment to social change. These results suggest that to understand how to promote commitment to social change, we need to understand the social forces that promote the formation and internalization of meaningful social identities.

Keywords: Social identity formation, social change, internalization, social interaction, self-determination, hope, collective action.

Reaching Consensus Promotes the Internalization of Commitment to Social Change

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has (Mead, n.d.).

Solving the world's most pressing problems will require the collective commitment of large numbers of people. Recent reports on the global effects of climate change (Intergovernmental Panel on Climate Change, 2014) and support for the international movement to end extreme poverty (United Nations, 2015) highlight key challenges to progress but suggest that effective solutions to these global problems can be delivered through the coordinated efforts of individuals and governments alike. Psychological science has made strong contributions to developing explanations of the former (individual commitment; e.g. Gifford, 2011) but if we take seriously the idea that social change requires coordinated efforts then this becomes a task for the social psychological science of group processes with an admixture of intergroup relations.

The social identity perspective provides some useful starting points. The social identity perspective differentiates between personal and social identities (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). While personal identities are relevant to idiosyncratic preferences and interpersonal relationships, social identities are relevant to understanding broader scale social phenomena like crowd events (Reicher, 1996), socio-political action (Klandermans, 2002; see van Zomeren, Postmes & Spears, 2008, for a meta-analysis), volunteerism (Simon, Stürmer & Steffens, 2000; Thomas, Rathmann & McGarty, 2016) and social movement participation (e. g., Simon & Stürmer, 2004; Thomas et al., in press). That is, social identities underpin engagement in a broad range of behaviors (activism, volunteerism) that are aimed at changing the circumstances of disadvantaged or underprivileged groups. In the current paper we utilise an inclusive definition to consider

these under the rubric of 'commitment to social change' (see Sweetman, Leach, Spears, Pratto, & Saab, 2013, who advocate for a broader conceptualization of social change goals). We conceptualize *commitment to social change* as a set of cognitive (e.g., a sense of duty to help redress a social problem), affective (e.g., feelings of hope or optimism) and behavioral (e.g., taking social change action) factors that work together to promote engagement to assist disadvantaged groups. Commitment to social change extends beyond the immediate interests of oneself, friends and family, and social identity is therefore critical to understanding it.

Other development have considered the ways that *new* social identities can be formed interactively through communication, discussion and debate (e.g. Bongiorno et al., 2016; Postmes, Haslam, & Swaab, 2005; Smith, Thomas, & McGarty, 2015; Thomas & McGarty, 2009; Thomas, McGarty, & Louis, 2014). Margaret Mead's well-known statement (above) attests to the idea that there can be something powerfully energizing about small groups. Commitment to social change is unlikely to arise in a social vacuum: people need to develop a sense of 'who we are' (what our shared opinions are) and 'what we do' (a shared orientation toward action) in order to be motivated to act (Klandermans, 1984; Thomas, McGarty, & Mavor, 2009; Smith et al., 2015; van Zomeren, Spears, Leach, & Fischer, 2004). Put differently, such commitment is likely to be *predicated in social knowledge* about what relevant others think and intend to do, and this is knowledge that can only be obtained through communication (Smith et al., 2015; Thomas et al., 2009). These insights were demonstrated in Lewin's (1943, 1947) seminal studies on food preferences during World War II: people were more likely to prepare offal for family meals (in a context of food restrictions and as part of the US domestic war effort) when they had had the opportunity to *discuss* doing so with others.

Building on these insights, it has recently been argued that social interaction is to social psychologists what the crucible is to chemists (Thomas, McGarty & Mavor, 2016).

Analogous to a chemical reaction, when people are brought together they agitate, provoke and qualitatively transform one another (e.g. Drury & Reicher, 2000). Importantly, these interactions are not separate from society – although these interactions may be cultured in the lab (Thomas & McGarty, 2009) or in schools (Sherrod, Torney-Purta, & Flanagan, 2010) they are reflections of broader societal processes. However, relatively little research considers the role of small intragroup dynamics of discussion and debate in the formation of the self-concept (Wittenbaum & Moreland, 2008), social identity formation (Thomas et al., 2016) or shaping intergroup relations more broadly (Dovidio, 2013; Hogg, Abrams, Otten & Hinkle, 2004). Our research speaks to this gap. We ask: What are the mechanisms through which communication, discussion and debate *effectively* promote social identity formation and commitment to social change?

Social Identity Formation through Social Interaction

Notwithstanding Margaret Mead's observation, our starting point is the observation that not all forms of social interaction or communication will effectively promote widespread engagement with social change goals (Hardin & Higgins, 1996; Smith et al., 2015). Just as the small group literature has documented a role for cohesion, trust and transactive memory on group performance (see Levine & Moreland, 2006, for a review), so too here we expect that not all social interactions would promote commitment to social change.

The Role of Consensus. Smith et al. (2015) have recently elaborated some of the specific features of effective communication that promote social identity formation and commitment to social change. Specifically, Smith et al. argue that identity formation is predicated on *the emergence of a socially shared consensus* or agreement that is reached through social interaction (see also Bennett, 1955). It is through consensus that aspirations for the 'way the world should be' become represented and expressive of a collective or group-

level self (that is, a social identity). This is because reaching a consensually shared position

allows group members to form a set of socially shared cognitions (Hardin & Higgins, 1996),

increasing confidence in action (Smith & Postmes, 2011). Subjective agreement allows one to

feel validated in one's worldviews and promotes a new social reality (Festinger, 1954;

Turner, 1991). Our hypothesized model of commitment to social change therefore takes the

establishment of a consensus of opinion about desired changes as its starting point (Figure 1).

The Role of Internalized Motivation. Moreover, we go a step further to specify the

processes through which consensus enables social identity formation by shaping motivation.

One of the barriers to mobilizing people who have not (yet) developed commitment to social

change, is that these efforts may not be seen as inherently useful, interesting or enjoyable.

Self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000) recognizes that the

same behavior (e.g. completing homework, exercising, voting) can be enacted for many

different reasons and that these motives can change over time. From this perspective,

internalization is a process of integrating external regulations (things that are useful for

personal or social functioning but not seen as inherently interesting) into one's sense of self

such that they become intrinsically self-driven (things that are done for the inherent

satisfaction of doing so; Deci, Eghrari, Patrick & Leone, 1994). In the context of the current

research, this is analogous to people being involved in social change actions because they

choose to do so (they find them interesting or worthy) rather than because they have to (see

Stukas, Snyder & Clary, 1999). The SDT perspective differentiates between different degrees

or levels of internalized motivation (also called self-determined motivation). However when a

set of values or behaviors has become wholly self-determined or internalized the individual

"identifies with the value of an activity and accepts full responsibility for it" (Deci et al.,

1994, p.121).

6

A large literature attests to the idea that this more differentiated view of motivation is important for understanding performance and perseverance in a range of settings including education, health and organizations (see Ryan & Deci, 2017, for a review). However, relatively little research considers these principles in relation to the development of political, civic commitment to social change (but see Koestner, Losier, Vallerand, & Carducci, 1996; Losier, Perrault, Koestner & Vallerand, 2001). Nevertheless, this is clearly a domain in which the insights of self-determination theory are relevant because, initially at least, becoming engaged in actions to bring about social change is effortful but not necessarily inherently enjoyable or rewarding.

An additional complexity is that motivation can exist at many levels. People can be motivated to engage in specific tasks or activities (e.g., homework: "I am motivated to complete my homework") but also in relation to a domain (e.g., educational attainment: "I am motivated to learn") or more globally across multiple domains (e.g., personality: "I am a motivated person"; Vallerand, 1997). We focus here on internalized motivation in relation to a small group task (addressing a lack of safe drinking water for people in developing countries), as a specific activity that can express motivation to engage with the broader domain (of ensuring safe drinking water for people across the world). Just as it is useful to consider how internalized motivation can support engagement in homework (task) and therefore promote educational attainment (domain; Deci, Vallerand, Pelletier & Ryan, 1991), we consider how engagement in the relevant task at hand may express motivation to promote social change in the broader domain. Thus, in the same way that, for a previously distracted high school student, the activity of completing homework may express a new dedication to learning, we use motivation in relation to the task to capture (an emerging) dedication to promoting safe drinking water globally.

Linking with the arguments above, we suggest that reaching agreement in small group interactions fosters a sense in which those activities are enjoyable and/or satisfying (internalized motivation). This is because consensus satisfies the need for relatedness, whereby people are more likely to "internalize and accept as their own the values and practices of those to whom they feel, or want to feel, connected, and from contexts in which they experience a sense of belonging" (Niemiec & Ryan, 2009, p. 139). Thus, the degree to which there is subjective agreement (consensus) in the discussion about the issues and solutions, should be associated with an increased endorsement of the group's activities as enjoyable and worthwhile in their own right (reflecting internalized motivation).

Moreover, another outcome of internalized motives is that they become increasingly reflective of 'self' (Ryan & Deci, 2000). If an activity or task is engaged in autonomously and for its intrinsic value or enjoyment (i.e., out of internalized motivation) then this says something about the kind of person that "I am" (personal identity) or, in a small group context, the kinds of people that "we are" (social identity; see also Thomas, Amiot, Louis & Goddard, 2017, for a perspective on collective level motivation). If this is the case, then this 'authentic' or internalized commitment may provide the impetus for the formation of new social identities. Overall, we suggest that the formation of consensus through small group interaction will promote new social identities because it allows people to internalize the goals, values and aspirations of that small group (see also Smith et al., 2015). Figure 1 reflects internalized motivation as a crucial mediating mechanism of the effects of reaching consensus on social identification and commitment to social change.

The Current Research

Our analysis adopts the joint insights of a prominent theory of group processes and intergroup relations (the social identity approach; Tajfel & Turner, 1979; Turner et al., 1987)

and a leading theory of individual motivation (self-determination theory; Deci & Ryan, 1985; Deci et al., 1994) to explore the socially interactive ("outside, in") and intra-individual ("inside, out") determinants of commitment to social change (see also Amiot, Sansfacon, & Louis, 2014; Amiot, Sansfacon, Louis, & Yelle, 2012; Legault & Amiot, 2014; Thomas, Amiot et al., 2017, for other integrations of these two approaches). We also marry the insights of the literature on small-group dynamics with those of the intergroup relations literature (see Figure 1; c.f., Dovidio, 2013) to consider the circumstances under which "a small group of thoughtful citizens" becomes committed to changing the world (Mead, n.d.).

We explore the hypothesis that, through reaching consensus in small groups, people internalize the goals and aspirations of that small group as intrinsically satisfying and worthwhile. Thus, in the small group context, internalized motives stem from consensus because agreement allows one to feel validated in one's worldviews (Turner, 1991) and fulfils a psychological need for relatedness (Niemiec & Ryan, 2009). In the terms of self-determination theory (Deci & Ryan, 1985), motivations that have become internalized provide an 'authentic' basis for psychological and behavioral commitment to social change. Drawing on the insights of the social identity tradition and the idea that internalized motives reflect 'self', we propose that this internalized motivation will give rise to a qualitatively new form of (collective) self (i.e., a social identity). That is, internalized motivation of the task provides a platform for the emergence of new social identities. This new identity – predicated on challenging the status quo – is, in turn, the proximal predictor of affective ("I am hopeful"), cognitive ("I am responsible for action") and behavioral commitment to social change ("I intend to take actions to change this state of affairs"; Figure 1).

We conducted our test with youth (aged 16-17) and in the context of a socially important but little considered domain: the issue of achieving safe drinking water for people in developing countries. Every day nearly 1000 children die due to preventable waterborne

diseases (United Nations, 2015). On the 25th September 2015 countries adopted a new set of goals to end extreme poverty and ensure prosperity for all (the Sustainable Development Goals, SDGs: United Nations, 2015). The achievement of clean water and sanitation for people in developing countries is one of sixteen goals but it arguably underpins progress on many of the others because water scarcity and contaminated water affects food security, livelihoods and educational opportunities (United Nations, 2015). Understanding the bases upon which people – and perhaps especially young people –develop a commitment to achieve safe drinking water for people in developing countries is therefore both timely and of broad practical significance (Thomas, McGarty, Stuart, Lala, & Pedersen, 2017).

Participants engaged in a short group interactive task and then completed a questionnaire containing quantitative measures of key constructs. Our primary test utilizes these (multi-level) quantitative responses to test the model (Figure 1). However, we also audio-recorded the interactions and coded those data to explore whether the hypothesized drivers could be evidenced in the explicit, naturally occurring "talk" of the interacting groups (c.f., Torney-Purta, Amadeo & Andolina, 2010).

Method

Participants

Participants ($N = 137$) were young people recruited through 11 secondary schools in an Australian city. The majority of participants were in Year 11 (86.9%, remainder in Year 12), and were female (72.3%). Participants were aged between 15-20 years ($M_{age} = 16.23$, $SD_{age} = .99$); 4 people did not indicate their gender or age. There were no exclusions.

Procedure

Students participated on a voluntary basis. Researchers introduced themselves to the class as researchers interested in exploring the ways that young people develop an interest in social issues. In this way, we sought to establish the basic optimal conditions for self-determination as it related to autonomy and relatedness (Niemiec & Ryan, 2009).[1] The procedure was comprised of three steps. In the first step, researchers organized participants into small groups of 3-6. Participants accessed the website connected to the United Nations' 'Water for Life' program (http://www.waterforlife.org/) and read information about the need to secure safe drinking water for people in developing countries. In the second step, participants were asked to engage in a small group task for 20-25 minutes. Since our hypothesized model takes the establishment of consensus through communication as its starting point, we sought to create additional variation through an (unsuccessful) experimental manipulation. Participants were instructed to either "discuss and reach agreement about their opinion on this issue", "discuss and reach agreement on practical strategies to promote this movement", or both [2]. Participants discussed their opinions and strategies for 20-25 minutes and notated their views and suggestions before completing the questionnaire (the third step). Discussions were audio recorded and content analyzed.

Measures

All quantitative items were measured on 1-9 Likert-type scales (1 = *Strongly disagree*, 9 = *Strongly agree*), unless otherwise described. We included measures additional to those addressed here. A full set of research materials is available from the first author.

Consensus of opinion and action. We measured the degree to which there was perceived to be a consensus of opinion on desired change and action to achieve that change within the interacting group using four items: e.g. "my group agreed on the importance of achieving safe water for people in developing countries", "I agreed with the other group

members on what can be done to promote safe drinking water". Principal components analysis confirmed that these items had a unidimensional structure that accounted for 59.37% of variance (all components > .70), and they were aggregated to form a measure of consensus (α = .76).

Internalized motivation. Fourteen items adapted from the Intrinsic Motivation Inventory assessed participants' experience of the specific task (e.g. Deci et al., 1994). Two items assessed participants: enjoyment of the task ("I enjoyed the group discussion very much"), perceived competence ("I am satisfied with my group's performance at this task"), effort ("I put a lot of effort into this"), perceived pressure ("I felt pressured while doing this activity"), value/usefulness ("I believe this activity could be of some value to me") and perceived choice ("I felt like it was not my own choice to do this task" [R]), respectively. Whilst specific sub-scales can be used to explore different parts of the process of self-regulation, our interest here is in capturing the full continuum of motivation (internalized to externalized) so we retained the full scale in the current analysis (α = .83).

Social identification. Social identification with a group defined by support for clean and safe drinking water for people in developing countries was measured with 12 items adapted from Cameron (2004). Example items are: "In general, being a 'Water for Life' supporter is an important part of my self-image"; "I feel strong ties to other 'Water for Life' supporters". These items were aggregated to form a reliable scale (α = .71).

Commitment to social change. Consistent with our conceptualization of commitment to social change as involving cognitive, affective and behavioral processes, we measured each component. Cognitive commitment to social change was assessed with two items that conveyed a sense of personal responsibility to act, e.g.: "I have a responsibility to take action to raise awareness of the water situation in developing countries" (r = .72, p < .001). Affective commitment to social change was measured with two items assessing

feelings of hope for the future of people in developing countries: "Considering the water situation and the plight of people in developing countries, I feel: hopeful [optimistic]." ($r = .70$, $p < .001$).

The most important part of commitment to social change is a commitment to take action to bring about desired change; this was measured with nine items which assessed intention to engage in a range of behaviors from low-cost, accessible, actions (e.g. "I intend to post or join a group on Facebook [sign an online petition] about the water situation in developing countries"), to more costly actions (e.g. "I intend to support the 'Water for Life' movement by organizing a fund raising event at my school"; "I intend to write a letter expressing my views to a government minister or official"). Two items assessed intention to engage in future action (e.g. "In the future I would like to get involved with an international humanitarian organization or project"). The items were intended to capture the broad spectrum of behaviors that can demonstrate commitment to social change (civic learning or knowledge, volunteerism, socio-political actions) relevant to young participants. These items were aggregated to form an internally consistent scale ($\alpha = .87$).

Results

Statement of Analytic Strategy

As the participants engaged in group interaction, the questionnaire data were statistically non-independent (individuals were nested within interacting groups which are, in turn, nested within the broader group 'school'). The (individual) questionnaire responses ($N = 137$) were therefore subjected to multi-level path analysis using Mplus Version 7 to control for non-independence at the group and school level (Muthén & Muthén, 2007). In these models, γ represents the regression coefficient (similar to β coefficients in multiple regression). As an exploratory examination of the actual content of the discussion, the audio

13

recordings of the small-group discussions were content analyzed to provide a behavioral indication of whether the hypothesized processes could be evidenced in the explicit interactions between group members. These data were coded at the group level of analysis (N = 40).

Multi-level Path Model

Table 1 displays the descriptive statistics (means, standard deviations), variance proportions (note that the 'between groups' variance proportion is the equivalent of the intraclass correlation) and correlations for the key dependent variables (values to the right of the backslash). It can be seen that a larger proportion of variance is accounted for within groups than between groups on all the variables; this suggests that a larger proportion of variance is explained within individuals than at the group level. However, for the two variables relevant to the group communicative process – consensus (41.7%) and internalization (31.8%) – a substantial amount of variance is accounted for at the group level suggesting that features of the specific interaction that participants had exerted a meaningful impact on their perceptions of agreement and how much internalized motivation they report about the discussion. The correlations show that both consensus and internalization were associated with social identification and the markers of commitment to social change (hope, responsibility, and action). This provides preliminary support for the idea that reaching agreement within a group, and internalizing the task as effective and useful, are associated with key outcome measures.

We next tested the multi-level path model. The path model was specified at the between-person level of analysis but was 'empty' at the between-group and school levels of analysis. Since the model considered only between-person relationships the SRMR (within) is the most relevant index to judge fit as other traditionally reported indices (CFI, RMSEA) are

not reliable for multi-level models (Muthén & Muthén, 2007). A value of zero indicates perfect fit for SRMR (within) and a value of ≤ .08 is considered evidence of good fit (Hu & Bentler, 1999).

We first tested a serial mediation model in which consensus predicted internalized motivation, which predicted social identification, which in turn predicted the three markers of commitment to social change (hope, responsibility and action, respectively). Hope, responsibility and commitment to act to support social change were all allowed to correlate. The model fit was acceptable, SRMR (within) = .080, and Figure 2 shows that all the paths were significant with the exception of the path from identification to hope which was marginal (p = .07). Tests of the indirect effects of consensus on action through internalization and identification were significant (.17, SE = .05, 95% CI [.08, .27]), as was the indirect effect of consensus on responsibility through internalization and identification (.09, SE = .04, 95% CI [.01, .18]), however the indirect effect of consensus on hope through internalization and identification was not (.04, SE = .03, 95% CI [-.01, .10]).

We next tested an alternative model in which internalized motivation mediated the effect of identification on commitment to social change (action, hope and responsibility). That is, the causal order of identification and internalization in Figure 1 were reversed. This model did not fit the data, SRMR (within) = .134, supporting the idea that the small group processes (consensus and internalized motivation) are antecedent to the intensification of the intergroup factors. In all, these results provide good support for the hypothesized pathway of consensus-internalization-identification-commitment to social change.

Content Analysis of Behavioral Data

In order to explore whether the same processes could be evidenced in the explicit interactions between participants, content analyses were performed on the transcripts of the

40 group discussions to identify: a) episodes where there was evidence of consensus or agreement within the group; b) cases where participants demonstrated a sense of internalized motivation; c) instances of first person plural pronouns ('we') indicative of an emergent social identity (see Antaki et al., 1996); d) the expression of an affective commitment to social change (feelings of hope); and e) the expression of cognitive commitment to social change (personal responsibility). Iterative inductive and deductive coding procedures were followed by two coders (following Miles & Huberman, 1994). Coders recorded the frequencies for each group independently and a third person acted as arbiter over the final code. Inter-rater agreement was satisfactory (75.46%).

Of the five constructs, only consensus ($M = 7.49$, $SD = 4.57$) and identification ($M = 6.20$, $SD = 3.28$) were detected at frequencies that could be quantitatively analyzed. The two were strongly correlated, $r = .89$, $p < .001$, suggesting that consensus was significantly correlated with the use of 'we' talk indicative of an emergent identity (Zhang, 2010). Instances of hope, responsibility and motivation were all close to zero, indicating that these internal cognitive (responsibility), affective (hope) and motivational (internalized motivation) states were not explicitly communicated between participants.

Discussion

Effective action to solve urgent global crises thus requires the commitment of large numbers of people but it is often claimed that participation in civic life is declining in many Western liberal democracies (e.g. Flanagan, 2003; Galston, 2001). Understanding the mechanisms through which people develop a commitment to act to bring about social change has taken on a renewed significance within scientific and policy circles alike (e.g., Gifford, 2011). It is well-established that participating in community programs fosters the development of identity and subsequent adult engagement in civic activity (e.g. volunteerism;

Flanagan, 2003; Yates & Youniss, 1998). In developing an analysis of the (micro) dynamics of small group interaction amongst young people, the current research helps us to understand why this is so.

We showed that social identity formation was predicated on communication that effectively established a shared consensus of opinion on desired change and action to achieve that change, which allowed people to internalize pursuing that agenda as intrinsically worthwhile and satisfying (Smith et al., 2015). This internalized motivation was associated with increased commitment to the cause (social identification). Social identification, in turn, was a strong, significant predictor of commitment to engage in actions designed to bring about social change on the issue of safe drinking water for people in developing countries (volunteerism, organizing events, contacting political decision makers), the endorsement of personal responsibility for this global problem and, more cautiously, feelings of hope (cognitive and affective commitment, respectively).

Moreover, we also considered the motivational processes through which features of the social world (relating to perceived agreement on social issues) become part of a social self to promote commitment to action. Here, we found that internalized motivation was a crucial mediating mechanism of the effect of consensus on social identification and commitment to social change. Thus, the more participants experienced the task as self-determined (volitional, autonomous, enjoyable and beneficial; Deci et al., 1994), the more they took on the communication of consensus as meaningful to one's self (social identity), and developed commitment to act accordingly. These findings are therefore consistent with other research that finds that social identification is fostered by the provision of self-determined motives (but not non-self-determined motives; see Yampolsky & Amiot, 2013, for a test in the context of ingroup bias). In doing so we link the intra-individual motivational processes specified in self-determination theory to develop an account of how people can

form groups to take socially consequential actions (Legault & Amiot, 2014). This research thus has significant implications for both self-determination and social identity perspectives.

Regarding the former, a wealth of literature supports the core principles of self-determination theory in educational, health and sports contexts, and across the lifespan (Ryan & Deci, 2017). People who are more self-determined persist more at tasks that are ostensibly boring but important (Deci et al., 1994), demonstrate greater conceptual learning and memory (Grolnick & Ryan, 1987) and greater academic attainment (Grolnick, Ryan & Deci, 1991). However, this research is the first (to our knowledge) to consider self-determined motivation in the context of commitment to social change and, as such, we apply a very widely supported theory of motivation to the longstanding concern of how to boost commitment to social change. Although within self-determination theory, internalized motivations are understood to be congruent with self and identity (e.g. Ryan & Deci, 2000), here we take a different tack to suggest that these motivations can also give rise to, or facilitate, *qualitatively new forms of identity,* predicated in opinions about how we want the world to be.

Similarly, in the intergroup relations literature, it is well-established that social identity underpins a range of collective actions, however this prior research has not described the *differentiated* motivations (Ryan & Deci, 2000) underpinning identity formation for social change. Therefore, by integrating the insights of the self-determination perspective, the current research develops a more nuanced analysis of the role of social interaction and in particular, consensus (Smith et al., 2015; Thomas et al., 2009) and motivation (Ryan & Deci, 2000) in fostering the development of social identities. It is through social interaction that attitudes are intensified (Moscovici & Zavalloni, 1969), stereotypes are sharpened (Haslam et al., 1998) and group-based appraisals are validated (Yzerbyt, Kuppens, & Mathieu, 2016) but we would not expect these effects to be widespread where they are not predicated in agreement and authentic motives for engagement.

The current findings also speak to the idea that social interaction is a crucible for understanding how societal interactions can either mobilize or demobilize (Thomas et al., 2016, following Lewin, 1943, 1947). As such, this research also provides some valuable insights for practical efforts to promote commitment to social change generally, and engagement with the Sustainable Development Goals in particular. Specifically, the results support the idea that people need to be brought together to discuss an end to extreme poverty in a way that ultimately allows them to reach agreement about the issue, and ways to address it. In the simplest terms, agreement should be a primary goal of the interaction itself rather than something that is secondary or presupposed. This establishment of consensus helps to promote an internalized, self-determined motivation for engaging with the global poverty agenda. Critically, it is this socially interactive shaping of internalized motivation that will provide the impetus for identities, cognitions, emotions and behaviors that allows participants to 'become the change that they want to see in the world' (Smith et al., 2015; Thomas, Smith, McGarty & Postmes, 2010).

Limitations and Future Research

Nevertheless, we note that our data were cross-sectional, and we are wary of the limits on the claims of causality that this occasions. Future research should focus on replicating the results obtained here in the context of other global challenges (e.g., climate change; c.f. Bongiorno et al., 2016) and should experimentally manipulate consensus (see Smith & Postmes, 2011). Future research might also manipulate the hypothesized social supports (choice, competence, relatedness) for internalized motivation (Niemiec & Ryan, 2009). It may be that some of these social supports have a greater or lesser impact on social identity formation and the emergence of commitment to social change. For instance, if participants were presented with a coercive environment and/or primed with non-self-determined motives

for engaging with the task, we would expect that the interactive task would not be associated with social identification (as in Yampolsky & Amiot, 2013).

It is also the case that we have focussed on the internalization of the group activity or task (discussion about safe drinking water) but we did not measure the diverging motives for supporting the issue more broadly (domain; Vallerand, 1997). The degree to which one cares about an issue (and has internalized those views) may also be important individual differences factors that shape a persons' desire to communicate with others on this issue, and reach consensus. Future research should consider the role of internalized motives for supporting the domain as both an antecedent to communication and consensus-building, as well as an outcome that may prolong and sustaining commitment to social change on the topic more broadly.

The coding of the group discussions also provide mixed support for our model with behavioral evidence of only two of the five focal constructs emerging (consensus and identification). It is worth noting that we coded transcripts for explicit verbal reference to what are implicit, internal processes (relating to motivation, affective reactions and cognitions). Given that participants did not frequently make mention of their cognitions and emotions, and that an overt statement reflecting internalized motivation ("this was enjoyable and useful") may have been seen as geeky in this high school sample, this mixed support is perhaps unsurprising. Nevertheless, it is reassuring that the analysis of the content of the interactions supported one of the key tenets of our model, namely, that consensus is associated with "we" language indicative of an emergent identity process.

More generally, group interactions are often studied purely qualitatively (e.g., through focus group methodologies) or the outcomes are studied quantitatively, where the actual content of the discussion is treated as something of a black box. The methods adopted here

therefore represent a principled (but imperfect) step towards an examination of the *content,*

process and outcomes of group interaction, and answers calls for a multi-methods approaches

to understanding political socialization and engagement (see Torney-Purta et al., 2010).

Future research might incorporate other linguistic analysis techniques (e.g., computerized text

analysis using the Linguistic Inquiry Word Count program; Tauszik & Pennebaker, 2010) to

more comprehensively examine how features of social interaction enable (or impede)

consensus, shape motivation, and the development of commitment to social change.

Concluding Comments

Margaret Mead's famous quotation is often cited in research on activism and civic

engagement, but its key implication (that small groups lead to thoughtful, committed citizens)

has been little addressed. The current findings point to the very social ways that people

develop a sense of themselves as social actors. As Yates and Youniss (1998, p. 496) phrase it,

people are "reflective agents"; they actively interpret, accept and reject opinions and

opportunities in ways that are consequential not only for themselves but for those around

them. If we want to understand how to promote participation in social change to address

issues of global significance we need to understand the social forces – perhaps especially

social interaction – that promotes an authentic, internalized motivation to take action. These

results suggest that internalization and the formation of meaningful social identities are

promising places to start.

Footnote

[1] Self-determination theory outlines key social contextual factors that support internalized motivation. Wherever possible, the task must be experienced as autonomous (freely chosen), must be optimally challenging (not too hard or difficult), create a context of belonging (being valued), and be non-competitive (Niemiec & Ryan, 2009).

[2] This manipulation had a significant effect on identification ($p < .01$), but there were no differences on the check of the independent variable (consensus), or the remaining mediating or dependent variables (all ps > .05). Therefore, we used consensus as a measured (rather than manipulated) independent variable and collapsed the data across experimental conditions. This allowed us to focus on testing the structural process of internalization, social identity formation and commitment to social change, rather than on testing condition differences per se.

References

Amiot, C. E., Sansfaçon, S., Louis, W. R., & Yelle, M. (2012). Can intergroup behaviors be emitted out of self-determined reasons? Testing the role of group norms and behavioral congruence in the internalisation of discrimination and parity behaviors. *Personality and Social Psychology Bulletin, 38*, 63-76

Amiot, C. E., Sansfaçon, S., & Louis, W. R. (2014). How normative and social identification processes predict self-determination to engage in derogatory behaviours against outgroup hockey fans. *European Journal of Social Psychology, 44*, 216-230.

Antaki, C., Condor, S., & Levine, M. (1996). Social identities in talk: Speakers' own orientations. *British Journal of Social Psychology*, *35*(4), 473-492.

Bennett, E.B. (1955). Discussion, decision commitment, and consensus in 'group decision'. *Human Relations, 8*, 251-74.

Bongiorno, R., McGarty, C., Kurz, T., Haslam, S. A., & Sibley, C. G. (2016). Mobilizing cause supporters through group-based interaction. *Journal of Applied Social Psychology, 46*(4), 203-215.

Cameron, J. (2004). A three-factor model of social identity. *Self and Identity, 3*, 239-262.

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, *62*, 119-142.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour.* New York: Plenum Press.

Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational psychologist*, *26*(3-4), 325-346.

Dovidio, J. F. (2013). Bridging intragroup processes and intergroup relations: Needing the twain to meet. *British Journal of Social Psychology*, *52*(1), 1-24.

Festinger, L. (1954). A theory of social comparison processes. *Human relations, 7*(2), 117-140.

Flanagan, C. (2003). Developmental roots of political engagement. *PS: Political Science and Politics, 36*, 257-261.

Galston, W. A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Science, 4*, 217-234.

Gifford, R. (2011). The dragons of inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist, 66*, 290-320.

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology, 52*, 890-898.

Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). The inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology, 83*, 508-517.

Haslam, S. A., Turner, J. C., Oakes, P. J., Reynolds, K. J., Eggins, R. A., Nolan, M., & Tweedie, J. (1998). When do stereotypes become really consensual? Investigating the group-based dynamics of the consensualization process. *European Journal of Social Psychology*, *28*(5), 755-776.

Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In R. M. Sorrentino & E. T. Higgins (Eds.*), Handbook of motivation and cognition, Vol. 3: The interpersonal context* (pp. 28–84). New York, NY, US: Guilford Press.

Hogg, M.A., Abrams, D., Otten, S. & Hinkle, S. (2004). The social identity perspective: Intergroup relations, self-conception and small groups. *Small Group Research, 35*, 246-276.

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling, 6*, 1-55.

Intergovernmental Panel on Climate Change. (2014). Summary for Policymakers. In Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel & J.C. Minx (Eds.) *Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.

Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American Sociological Review, 49*, 583-600.

Klandermans, B. (2002). How group identification helps to overcome the dilemma of collective action. *American Behavioural Scientist, 45*, 887-900.

Legault, L., & Amiot, C. E. (2014). The role of autonomy in intergroup processes: Toward an integration of self-determination theory and intergroup approaches. In N. Weinstein (Ed.) *Human motivation and interpersonal relationships* (pp. 159-190). Netherlands: Springer.

Levine, J.M. & Moreland, R.L. (Eds). (2006). *Small groups.* New York, New York, USA: Psychology Press.

Lewin, K. (1943) Forces behind food habits and methods of change. *Bulletin of the National Research Council*, *108*, 35 - 65.

Lewin, K. (1947). Group decision and social change. *Readings in Social Psychology*, *3*(1), 197-211.

Losier, G. F., Perreault, S., Koestner, R., & Vallerand, R. J. (2001). Examining individual differences in the internalization of political values: Validation of the self-determination scale of political motivation. *Journal of Research in Personality, 35*, 41-61.

Mead, Margaret. (n.d.). BrainyQuote.com. Retrieved April 23, 2018, from BrainyQuote.com Web site: https://www.brainyquote.com/quotes/margaret_mead_100502

Miles, M.B. & Huberman, A.M (1994). *Qualitative data analysis* (2nd Edition). Thousand Oaks, California, USA: Sage.

Moscovici, S. & Zavalloni, M. (1969) The group as a polarizer of attitudes. *Journal of Personality and Social Psychology, 12,* 125-135.

Muthén, L. K., & Muthén, B.O. (2007). *Mplus user's guide*. Seventh Edition. Los Angeles, CA: Muthén & Muthén.

Niemiec, C.P. & Ryan, R.M (2009). Autonomy, competence, and relatedness in the classroom: Appyling self-determination theory to educational practice. *Theory and Research in Education, 7*, 133-144.

Postmes, T., Haslam, S. A., & Swaab, R. I. (2005). Social influence in small groups: An interactive model of social identity formation. *European Review of Social Psychology, 16*, 1-42.

Reicher, S. D. (1996). 'The Battle of Westminster': developing the social identity model of crowd behaviour in order to explain the initiation and development of collective conflict. *European Journal of Social Psychology*, *26*, 115-134.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68-78.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York, NY: Guilford Publications.

Sherrod, L. R., Torney-Purta, J. & Flanagan, C.A. (Eds). (2010). *Handbook of Research on Civic Engagement in Youth*. New Jersey: John Wiley & Sons.Simon, B., Stürmer, S., & Steffens, K. (2000). Helping individuals or group members? The role of individual and collective identification in AIDS volunteerism. *Personality and Social Psychology Bulletin, 26*, 497-506.

Smith, L. G.E, & Postmes, T. (2011). Shaping stereotypical behaviour through the discussion of social stereotypes. *British Journal of Social Psychology, 50*, 74-98.

Smith, L.G.E., Thomas, E.F. & McGarty, C. (2015). "We must be the change we want to see in the world": Integrating norms and identities through social interaction. *Political Psychology, 36,* 543-557.DOI: 10.1111/pops.12180

Stürmer, S., & Simon, B. (2004). The role of collective identification in social movement participation: A panel study in the context of the German gay movement. *Personality and Social Psychology Bulletin, 30*, 263-277.

Stukas, A.A., Snyder, M. & Clary, E.G. (1999). The effects of "mandatory volunteerism" on intentions to volunteer. *Psychological Science, 10*, 59-64.

Sweetman, J., Leach, C. W., Spears, R., Pratto, F., & Saab, R. (2013). "I Have a Dream": A Typology of Social Change Goals. *Journal of Social and Political Psychology, 1*(1), 293-320.

Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology, 29*, 24-54.

Thomas, E.F., Amiot, C., Louis, W.R. & Goddard, A. (2017). Collective self-determination: How the agent of help promotes pride, well-being and support for intergroup helping. *Personality and Social Psychology Bulletin, 43,* 662-677.

Thomas, E.F., Mavor, K.I., & McGarty, C. (2012). Social identities facilitate and encapsulate action-relevant constructs: A test of the social identity model of collective action. *Group Processes and Intergroup Relations, 15*, 75-88.

Thomas, E.F., & McGarty, C. (2009). The role of efficacy and moral outrage norms in creating the potential for international development activism through group-based interaction. *British Journal of Social Psychology, 48*, 115-134.

Thomas, E.F., McGarty, C. & Mavor, K.I (2016). Group interaction as the crucible of identity formation: A glimpse at the origins of collective identity and action. *Group Processes and Intergroup Relations, 19, 137-151.* DOI: 10.1177/1368430215612217

Thomas, E. F., McGarty, C., & Louis, W. (2014). Social interaction and psychological pathways to political engagement and extremism. *European Journal of Social Psychology, 44*, 15-22.

Thomas, E.F., McGarty, C., Stuart, A., Lala, G. & Pedersen, A. (2017). Education and social participation: Civic identity and civic action in formal and informal education contexts. In Ken Mavor, Michael Platow, Boris Bizumic (Eds). *Self and Social Identity in Educational Contexts*. (pp.141-156) Abingdon: Routledge.

Thomas, E.F., Smith, L.G.E., McGarty, C. & Postmes, T. (2010) Nice and nasty: The formation of pro-social and hostile social movements. *International Review of Social Psychology, 23*, 17-55.

Thomas, E.F., Rathmann, L., & McGarty, C. (2017). From 'I' to 'we': Different patterns of identity, emotion and belief distinguish victim support volunteers from non-volunteers. *Journal of Applied Social Psychology, 47,* 213-223.

Torney-Purta, J., Amadeo, J., & Andolina, M. W. (2010). A conceptual framework and multimethod approach for research on political socialisation and civic engagement. In L. R. Sherrod, J. Torney-Purta, & C. A. Flanagan (Eds). *Handbook of research on civic engagement in youth*. (pp 497-523). New Jersey: John Wiley & Sons.

Turner, J., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A social categorization theory*. B. Blackwell, Oxford, UK.

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin, 20*, 454-454.

United Nations. (2015). *Sustainable Development Goals*. Retrieved 9 August 2017 from http://www.un.org/sustainabledevelopment/sustainable-development-goals/

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 271-360). San Diego, CA: Academic Press.

van Zomeren, M., Spears, R., Fischer, A.H., & Leach, C.W. (2004). Put your money where your mouth is! Explaining collective action tendencies through group-based anger and group efficacy. *Journal of Personality and Social Psychology, 87*(5), 649-664.

Wittenbaum, G.M. & Moreland, R.L. (2008). Small-group research in social psychology: Topics and trends over time. *Social and Personality Psychology Compass, 2/1*, 187-203.

Yates, M., & Youniss, J. (1998). Community service and political identity development in adolescence. *Journal of Social Issues, 54*(3), 495-512.

Yampolsky, M. A., & Amiot, C. E. (2013). Priming self-determined and non-self-determined group identification: Effects on well-being and ingroup bias. *Group Dynamics: Theory, Research, and Practice, 17*, 137-149.

Yzerbyt, V., Kuppens, T., & Mathieu, B. (2016). When talking makes you feel like a group: The emergence of group-based emotions. *Cognition and Emotion*, *30*(1), 33-50.

Table 1. *Means, standard deviations, variance proportions (intraclass correlations) and correlations between variables of interest*

Variable	Mean	SD	Within groups	Between groups/ ICC	Consensus	Internalized motivation	Social identification	Hope	Personal responsibility	Commitment to social change action
Consensus	7.76	0.69	58.3%	41.7%	---					
Internalized motivation	6.63	0.63	68.2%	31.8%	.24/.49***	---				
Social identification	5.64	0.30	93%	7%	.18/.27**	.36/.41***	---			
Hope	6.41	0.64	88.6%	11.4%	.29.32***	.16/.25**	.13/.12	---		
Personal responsibility	5.97	0.65	86%	14%	.11/.28***	.04/.21*	.29/.30**	.14/.20*	---	
Commitment to social change action	5.90	0.71	81.2%	18.3%	.18/.29***	.30/.41***	.60/.60***	.15/.23**	.45/.47***	---

Note that the numbers to the left of the backslash indicates the correlation within groups (i.e. controlling for both group level and school factors); the number to the right of the backslash indicates the bivariate correlation (not accounting for non-independence). *** denotes significance at $p < .001$, ** denotes significance at $p < .01$, * denotes significance at $p < .05$.
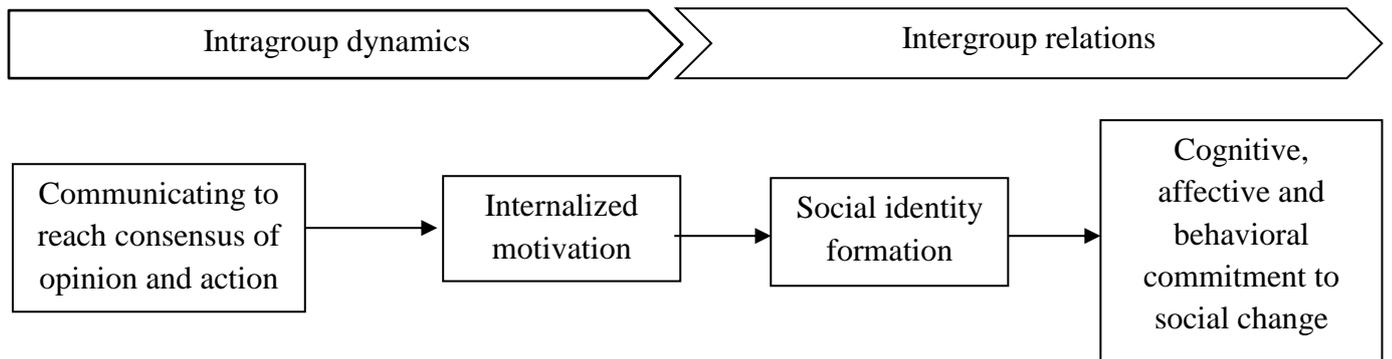
| Intragroup dynamics | Intergroup relations |

| Communicating to reach consensus of opinion and action | → | Internalized motivation | → | Social identity formation | → | Cognitive, affective and behavioral commitment to social change |

Figure 1. Conceptual model. Consensus within communication allows for the development of an 'authentic' (internalized) motivation which promotes the formation of relevant social identities and commitment to social change.
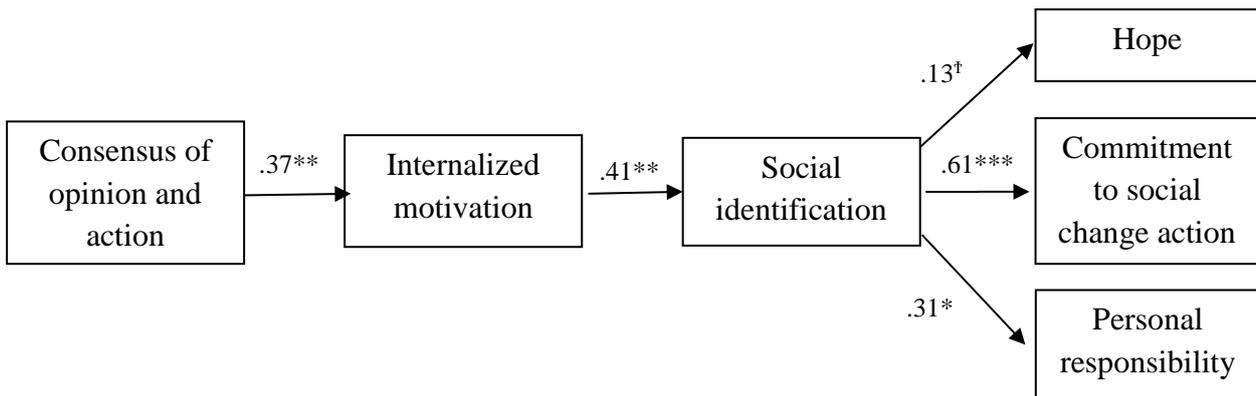
Figure 2. Multi-level path model testing hypothesized process. † denotes significant at *p* < .07,

∗ denotes significant at *p* < .05, *** denotes significant at *p* < .001. SRMR(within) = .080.

Hope correlated with action (*p* = .05) and responsibility (*p* = .07) and responsibility

correlated with action (*p* < .001).