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**The Role of Social Media in Shaping Solidarity and Compassion Fade:
How the Death of a Child Turned Apathy into Action but Distress Took it Away**

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Abstract

An image of drowned Syrian toddler, Aylan Kurdi, was popularly shared through social media and this promoted a surge of solidarity with Syrian refugees in September 2015. However, this response was not sustained. We explore the role of social media engagement in the emergence of solidarity and its decline (compassion fade). We collected data when sympathy for refugees was peaking (September 2015), and one year later. Latent Change Score modelling ($N=237$) showed that engagement with the image through social media allowed people to form a pro-refugee group consciousness, that acted as the proximal predictor of solidarity. However, reductions in the same factors explain the reduced commitment one year later. Distress predicted the reductions in social media engagement. The results support the power of social media to ignite world-changing action, but caution that online engagement may dissipate in the face of ongoing challenges.

Keywords

Solidarity, compassion, refugees, social media, social change, social identification, demobilization, collective action, outrage, distress

**The Role of Social Media in Shaping Solidarity and Compassion Fade:
How the Death of a Child Turned Apathy into Action but Distress Took it Away**

On the 2nd September 2015, the world was confronted with a powerful image of a Syrian toddler, Aylan Kurdi, who had drowned off the shores of Turkey as he and his family attempted to reach safety. The image provided an account of the stark realities facing people fleeing the conflict in Syria and other places in the Middle East. This picture captured the attention of citizens and leaders in a way that the rhetoric of the “on-going refugee crisis” had failed to do. This image was widely shared through social media reaching 20 million people in the first 12 hours via 30,000 tweets (Vis and Gorinuova, 2015). The image and its dissemination through social media was credited with a surge in support for Syrian refugees: one non-governmental organization reported a 3000% increase in donations (Dumas, 2016; see also Slovic et al, 2017, Figs. 3-4: p. 642). Politically, the public outcry prompted dramatic policy reversals in many countries including the US, the UK, Canada, Australia and central Europe (e.g., European Stability Initiative, 2015). For these reasons, the photograph is acknowledged by *Time* magazine as one of the most influential of all time (Goldberger et al., 2016). We conceptualize the dramatic increase in support for Syrian refugees as a form of *solidarity* (Saab et al., 2015; Subašić et al., 2008).

However, the dramatic increase in popular and political support was distressingly short-lived. On the one-year anniversary of Aylan Kurdi’s death, only a small proportion of the refugees that were promised resettlement had been resettled; and the popular support for refugees was not sustained (e.g., Kingsley, 2016). In popular reporting, this decline was linked to feelings of fear about terrorist events in Europe (e.g., the Paris attacks) as well as feelings of distress about the intractable nature of the disadvantage (e.g. Wright, 2015). Elsewhere, Slovic and colleagues (2017) pointed to these events as an example of

compassion fade - the tendency for societal concern to decrease in the face of greater human tragedy (e.g., Västfjäll et al., 2014: p.1).

In many ways, the dramatic response to the image of Aylan Kurdi (and its decline) captures the contemporary debate about the role of social media in civic engagement, social and political change (see Koc-Michalska et al., 2016 for a review). On the one hand, even small levels of online engagement from many millions of users can produce substantial social and political changes (Margetts et al., 2016). On the other hand, online forms of engagement are often derided as insincere, low-cost, or trivial ('slacktivism', see e.g., Gladwell, 2010; Morozov, 2009, 2011). In the case of the response to the image of Aylan Kurdi it seems true that the initial high levels of popular and political support for Syrian refugees were not sustained in the longer-term (Slovic et al., 2017). The current research therefore addresses two key questions: How can we understand the dramatic social and political changes provoked by the distribution of this image through (social) media? Conversely, what are the factors that undermined engagement with the plight of refugees through social media and (therefore) a sustained response?

We explore how engagement with the image of Aylan Kurdi through social media was related to increases in solidarity with refugees and subsequent compassion fade. We propose that the factor that enables, or allows for, the mass expression of solidarity is an *emergent group consciousness* (see Duncan, 2012). We propose that group consciousness emerged through online interactions about the image of Aylan Kurdi through social media (see Castells, 2012). Conversely, we suggest that feelings of fear and distress prompted reductions in engagement with the plight of refugees through social media, undermining group consciousness, explaining the reduction in solidarity witnessed between 2015-2016. In what follows we detail our rationale as it pertains to the role of social media in explaining solidarity and compassion fade, respectively.

Social Media Engagement Promotes Solidarity through an Emergent Group

Consciousness

There is a burgeoning literature pointing to the mobilizing effect of social media on diverse forms of civic, political and democratic participation (see Koc-Michalska et al., 2016, for an overview; Skoric et al., 2016, for a meta-analysis). Social media provide spaces in which people share information, communicate their worldviews and reach a consensus about what should be done (Castells, 2012; Ekström and Östman, 2013; McGarty et al., 2014; see also Postmes and Baym, 2005). The literature shows that social and political participation is engendered by interactions online (Alberici and Milesi, 2013), through platforms like Twitter and Facebook (e.g., Chan and Guo, 2013; Smith et al., 2015a). Interactions online build political self-efficacy (e.g. Gil de Zúñiga et al., 2009), especially when they involve the social affirmation of opinion (Kende et al., 2016). As the Aylan Kurdi example attests, even incidental exposure to news through social media can mobilize those who would be otherwise disengaged from the issue (e.g., Valeriani and Vaccari, 2016).

We draw on a recent integrative model from the psychological sciences to explain *why* interactions about the image of Aylan Kurdi online sparked political solidarity with refugees. A key insight here is the idea that, in order for people to act together to address injustices, they must identify with relevant groups that can mobilize action (van Zomeren et al., 2008). Through posting, sharing and commenting online, people form new identities relating to *how they want the world to be* (Smith et al., 2015b) and, far from being trivial or insincere, these actions reflect a person's sense of collective self-hood (that is, a part of themselves that they share with others; see Spears et al., 2002; Thomas et al., 2015). The implication is that social media engagement will only shape civic or political engagement to the extent that it allows for people to form a sense of psychological unity with other people who share their worldview (see also Bennett and Segerberg, 2011, 2012).

Duncan (2012, p.781) terms this sense of unity or common cause ‘group consciousness’. Group consciousness is an “overarching term that encompasses social psychological variables related to group identification and common fate, critical analysis of a group’s position in society, and a collective orientation toward redressing power imbalances between groups”. Group consciousness captures the interconnections between factors known to be the strongest drivers of actions to overcome injustice (see van Zomeren et al., 2008, meta-analysis): identification, affective reactions to injustice and efficacy. Current theorizing suggests that people will engage in actions to oppose injustice where they identify with groups that can mobilize action (that is, a politicized social identification like pro-refugee identification; see Blüch et al., 2007); feel strong, affective reactions to that injustice (feelings of outrage or sympathy); and believe that the group can act effectively to achieve group goals (group efficacy; Bandura, 2000). Where as some research models these variables (identity, injustice and efficacy) independently, Duncan’s (2012) concept of group consciousness effectively integrates these variables in order to capture their interconnections and latent quality of the group acting. Where does this nascent group consciousness come from?

In Duncan’s (1999, 2012) integrative model of collective action, key individual differences and life experiences act as antecedents to a group consciousness which, in turn, is the proximal predictor of coordinated action against injustice. In this way, key life experiences (relating to education, upbringing and opportunity), as well as individual differences (personality) act as antecedents to the development of a group consciousness which is, in turn, the proximal predictor of action. We propose that exposure to the image of Aylan Kurdi functioned as a signal life experience. To the extent that people viewed the image online, and engaged in interactions about it, this may have helped to form a pro-refugee group consciousness (defined by identification with a pro-refugee group, feelings of outrage and compassion, and belief that coordinated action can effectively achieve change;

van Zomeren et al. 2008). Group consciousness is, in turn, the proximal predictor of solidarity with refugees (see also Thomas et al., 2016). Put differently, group consciousness is the conceptual and psychological link between viewing, liking, sharing and interacting with the image of Aylan Kurdi through social media (a life experience, in Duncan's terms), and efforts to support refugees (solidarity). Consistent with this view, Odağ, Uluğ, and Solak (2016) demonstrated that, in the context of the Gezi Park protests, online interactions shaped identification, injustice appraisals and efficacy (here: group consciousness), indirectly promoting offline engagement (see also Thomas et al., 2015, in relation to the Kony2012 campaign). Thus, we explore the hypothesis that engagement with the image of Aylan Kurdi through social media promoted solidarity with refugees because it provided a basis for psychological group formation (i.e., a pro-refugee group consciousness).

Reductions in Social Media Engagement Explain Compassion Fade through an Erosion of Group Consciousness

The mobilizing effects of social media are contested by adherents of reinforcement theory who point to the evidence that social media only supports civic and political engagement amongst those who are already politically active (see Koc-Michalska et al., 2016, for an overview). There is also some experimental (Schumann & Klein, 2015) and longitudinal research (Emmer et al., 2012; Vissers et al., 2012) that has raised doubts about whether online interactions yield offline engagement. The current research takes a different tack to consider the factors that undermined a sustained engagement with the plight of Syrian refugees in social media.

We propose that the very factors that may help to explain the spontaneous outpouring of support for Syrian refugees in the aftermath of the image, may also help to explain why the response was not sustained. The literature on compassion fade (Västfjäll et al., 2014)

identifies a critical role for affect in explaining the tendency for societal responses to decrease when confronted with large-scale humanitarian or environmental emergencies. The initial popular and political response to the image of Aylan Kurdi may be because the image represented one, identifiable victim (as opposed to statistics about the suffering of many Syrian refugees as a group; see Slovic et al., 2017, also Lee and Feeley, 2016 for a meta-analysis). One identifiable victim elicits greater feelings of sympathy (Västfjäll et al., 2014; c.f. Small et al., 2007) than statistics about the suffering of many (see also Genevsky et al., 2013). Thus, the literature on compassion fade assigns a crucial role to affect, finding that people are more compassionate when a single, identified victim is presented rather than a group of victims. However, a downside is that such compassion can also reflect distress. Distress can lead people to avoid an issue, resulting in compassion fatigue or fade (c.f. Kogut and Ritov, 2005).

We propose that as an effective resolution to the conflict in Syria – and support for its victims – became increasingly intractable, this generated feelings of distress (e.g., Västfjäll et al., 2015), that undermined engagement (see Smith et al., 2008). Equally, media reporting of terrorist events in Europe may have created an atmosphere of fear towards refugees (see Iyer et al., 2014; Miller et al., 2009). Some media outlets speculated that the terrorists involved in the Paris attack were Syrian refugees (Rothwell, 2016; Tharoor, 2015). Indeed, in Australia (where the current research was conducted), some right wing commentators suggested that increasing the number of Syrian refugees accepted through the humanitarian program would pose direct threats to national security (Bolt, 2015; see also Gale, 2004). Thus, we suggest that changes in the social, political and geo-political environment after the emergence of the image promoted two distinct emotions – distress and fear – which, in turn, undermined engagement with the plight of Syrian refugees through social media. These discrete, negative emotional reactions may help to explain why the response was not sustained and are expected

to predict reductions in relevant social media engagement, which, in turn, undermined group consciousness and, therefore, solidarity.

An implication of this argument is that a deterioration in group consciousness will mediate or explain the link between reduced social media engagement and reduced political solidarity ('compassion fade', in the terms of Västfjäll, Slovic and colleagues). Although there is a rich literature showing that social and political mobilization is overwhelmingly driven by a sense of shared fate with other supporters (Duncan, 2012; Subašić et al., 2008; Thomas et al., 2009; van Zomeren et al., 2008), there is scant literature on *demobilization*. To the extent that there was indeed a rapid deterioration in the online interactions about Syrian refugees, reductions in group consciousness may explain the reductions in solidarity with refugees as a form of demobilization.

The Current Study

The current research integrates insights from social psychological, political and decision sciences to illuminate the factors that are associated with the mobilization and demobilization of solidarity in response to the images of Aylan Kurdi. We undertook data collection at two time points. Participants were first sampled when the image of Aylan Kurdi emerged (September 2015). We measured participants' exposure to the image of Aylan Kurdi and their time spent engaging with the issue through social media, as well as group consciousness (pro-refugee social identity, affective reactions to injustice: outrage and sympathy, and group efficacy). To measure solidarity, we asked about their psychological solidarity (reflecting a sense of "standing with" Syrian refugees; see Schubert and Otten, 2002; Subašić et al., 2008), (prior) self-reported actions to support Syrian refugees, and (future) intended action. Specifically, participants were asked about their past/intended donation to Syrian refugees, as well as whether they had signed a petition advocating for

Syrian refugees to the Australian government. These were the key behaviors that were implicated in the marked social and political changes at that time (Slovic et al., 2017). We supplemented these self-report items with an observed, behavioral measure of solidarity: participants were invited to allocate AUD10c either to Syrian refugees or disadvantaged Australian children. Participants completed the same items over one year later (November 2016) when the issue was no longer prominently featured in public discourse. In addition to the initial Time 1 measures, we asked participants about their feelings of fear and distress.

We tested three hypotheses. First, we expected that exposure to the plight of Syrian refugees through social media would be positively related to an emergent group consciousness and, in turn, solidarity, in September 2015 (contemporaneous mediation at Time 1, Hypothesis 1). Second, we expected that changes in exposure to the issue through social media would be positively associated with changes in group consciousness and, in turn, reductions in solidarity (latent change mediation, Hypothesis 2). Finally, given the potential for negative emotional responses evoked by the crisis (distress about the suffering of refugees and fear of terror attacks), we expected that these would be positively related to reductions in online interactions about the issue, and in turn, reductions in group consciousness and solidarity (Hypothesis 3). Put differently, we proposed that compassion fade would occur at least partly because feelings of distress and fear would erode the very resource that enabled the response in the first place.

We used a Latent Change Score model (LCS) to assess all three hypotheses (McArdle, 2009; Selig and Preacher, 2009). LCS models assess intra-individual (within person) change; the change is explicitly represented in the model by a latent change variable, which captures the (latent or unobserved) change between two measurements whilst accounting for measurement error (in this case, the difference between measurement in the “peak” of popular sympathy for Syrian refugees, and one year later). This latent change

variable is then incorporated into the structural model and can be used to predict other variables (including other latent change variables); or be predicted by other variables (including other latent change scores). LCS models therefore allow us to assess how *changes* in levels of exposure to an issue through social media, may be equally or more important in explaining group formation and solidarity, than static levels of social media exposure per se.

Method

Participants

Participants were recruited through the mailing lists of two non-governmental organizations as part of a larger, longitudinal project looking at attitudes towards support for global poverty reduction. Four hundred and thirty six people completed the survey at Time 1 and 367 participants at Time 2; we focus here on the participants for whom we have responses at both waves ($N = 237$). Participants were aged between 23 and 84 ($M_{age} = 53.25$, $SD = 13.58$), and were primarily female (66.7%); all but 3 were Australian citizens or permanent residents. The sample were well-educated with the majority (72.2%) possessing a university qualification or higher degree. Given our expected medium effect sizes ($r > .30$), power = .80 and $\alpha = .05$, with 9 latent variables and 24 observed variables, we require $N = 184$ to detect such effects (Soper, 2016).

Measures and Procedure

Participants were sent an e-mail inviting them to participate in research on “Personality and Social Attitudes Towards Global Poverty”. The e-mail included a link to a secure web server. Contained in the questionnaire was a supplementary section on “Attitudes Towards the Syrian Refugee Crisis”. The items were completed (primarily) on a 1-7 Likert-type scale where higher scores indicate higher endorsement of that construct. Measures were

identical at each of the two time points. Please contact the first author for a full set of measures.

Image and social media exposure.

Exposure to an iconic image. To avoid experimental demands that could arise from referring directly to the image of Aylan Kurdi, we asked participants whether they had “seen a recent image (photo) of the refugee crisis that has powerfully affected your views about this issue”; participants responded yes (= 2) or no (= 1).

Time spent. To assess depth of exposure we also asked about the time spent engaging with this issue on social media: how much time they had spent in the past week reading online discussions or watching videos about the refugee crisis (*None* = coded 1, *0-15 minutes* = 2, *15-30 minutes* = 3, *30 minutes-1hour* = 4, *1-3 hours* = 5, *3+ hours* = 6).

Learnt about the crisis through social media. Participants were asked: “What is the main way that you have learned about the recent events of the Syrian refugee crisis?” Participants selected all that applied from television, newspaper, social media, radio, talking to other people, and other media. In this research we report only responses to the ‘social media’ item (indicating that this was the main way that they learnt about the crisis; coded yes = 3, no = 0).

Group consciousness.

Consistent with Duncan’s (2012) conceptualization of group consciousness as incorporating identification with groups that mobilize action, (affective) reactions to injustice (sympathy and outrage) and the belief in the groups’ ability to act effectively, responses to each of these aggregated variables were parceled together and modeled as reflective indicators of group consciousness. Parceling the items addresses measurement error, makes parameter estimates more reliable, and allows for a more parsimonious model than if we used all the items separately (Hall et al., 1999).

Pro-refugee social identification. Three items measuring social identification as a person who supports Syrian refugees was adapted from Cameron (2004): “I see myself as a supporter of Syrian refugees”; “I identify with other supporters of Syrian refugees”; “Supporters of Syrian refugees have a lot to be proud of”, $\alpha = .92$ at Time 1, $\alpha = .91$ at Time 2.

Affective reactions to injustice: Sympathy and outrage. Two items adapted from Thomas et al. (2012) measured affective reactions to the disadvantage experienced by Syrian refugees in terms of outrage [anger], $\alpha = .88$ at Time 1, $\alpha = .91$ at Time 2, and sympathy [compassion], $\alpha = .83$ at Time 1, $\alpha = .75$ Time 2. The items were prefixed with the statement: “Considering the plight of Syrian refugees, I feel:”.

Group efficacy. Two items adapted from Thomas et al. (2012) measured the belief in the group’s ability to act effectively to support refugees: “Together Australians can improve the outcomes for Syrian refugees”, and “Together Australians can make a positive difference for Syrian refugees”, $\alpha = .96$ at Time 1, $\alpha = .98$ at Time 2.

Solidarity.

Psychological solidarity. Participants were presented with seven pictures of two increasingly overlapping circles; one circle was labeled Australian and the other was labeled Syrian refugees (Schubert and Otten, 2002). Participants read the information that “The circles represent different levels of closeness between the two groups” and were asked to select the picture that best represents how close they, as a member of their national group, feel to Syrian refugees.

Self-reported and intended solidarity action. Two items measured self-reported (past) action to support Syrian refugees, as well as intended (future) solidarity action. Specifically, participants responded to four items: “I intend to sign a petition” [“I have already signed a petition”], “I intend to donate to support Syrian refugees” [“I have already

donated to support Syrian refugees”], $\alpha = .74$ for intended action Time 1, $\alpha = .63$ at Time 2; and $\alpha = .48$ for self-reported action Time 1, $\alpha = .51$ at Time 2 (note that the poor reliability reflects the low number of items and dichotomous measurement).

Behavioral measure of solidarity. The self-reported items were supplemented with an observed measure of solidarity. Participants were told that we would donate AUD10c either to support Syrian refugees (coded 1), or disadvantaged Australian children (coded -1). Participants selected one option. This measure is thus a *relative* measure of solidarity with refugees (i.e., relative to another worthy cause).

Measures at Time 2 only

Fear. Participants reported how fearful and insecure they felt when thinking about refugees coming to Australia, $\alpha = .93$.

Distress. Two items assessed feelings of distress [sadness] when thinking about the plight of refugees, $\alpha = .75$.

Results

Preliminary Analyses

Table 1 displays the means (standard deviations) for the observed items at Time 1 and Time 2. Consistent with our sampling strategy, it can be seen that there were significant ($p < .05$) reductions in exposure to iconic images, time spent on social media, social identification, sympathy, group efficacy, psychological solidarity and intended solidarity action. However, levels of outrage did not change and self-reported (past) solidarity action significantly increased as did the overall proportion of participants indicating that they were engaging with the issue through social media. Table 1 also includes the proportion of people who reliably increased, decreased or were static according to the Reliable Change Index (RCI: see Christensen and Mendoza, 1986). The RCI provides useful descriptive information about the

nature of change in this sample. It can be seen that there was a large proportion of participants who decreased on the time they spent engaging with the plight of Syrian refugees online, pro-refugee social identification, sympathy, outrage, group efficacy and solidarity intention.

Due to an administrative error whereby the survey program did not effectively capture responses, there were missing data on the Time 1 social media exposure variables, as well as the observed donation allocation at Time 1 (47.3%-51.1%; $n = 112-121$). However, the participants for whom we have missing responses did not differ to those for whom we have complete responses on any of the other Time 1 measures (group consciousness or solidarity items; all p 's = .31-.98), nor were there differences between the two groups on the same (complete) variables at Time 2 (all p 's = .09-.94). A missing values analysis of the items at both time points as well as demographic variables (gender, age, education; including these can help explain missing data patterns, Enders, 2010) indicated that the data were Missing Completely at Random (MCAR), $\chi^2(4835) = 4794.10, p = .66$, suggesting that the likelihood of missingness does not systematically relate to either the observed data or missing data. Dong and Peng (2013) did simulations with 20%, 40%, and 60% of missing data and demonstrated that advanced data estimation techniques provided similar estimates at all missing data rates and that these were significantly less biased than using listwise deletion. Given the power requirements of the model (see above) we therefore addressed missing values using Full Information Maximum Likelihood (FIML) to maximize power and minimize bias (see Enders and Bandalos, 2001).

Main Analyses

Table 2 displays the correlations between the latent variables. We conducted a latent change score (LCS) mediation model (McArdle, 2009) using MPlus version 7.4 (Muthén and

Muthén, 2008-2012). Figure 1a displays the measurement model (the standardized loadings onto the latent factors) and Figure 1b displays the structural model that was tested and the standardized regression coefficients. Fit indices for the model indicated acceptable fit with the data: $\chi^2(237) = 439.51, p < .001$, RMSEA = .06 [90% LCI, UCI .05, .07], CFI = .91, SRMR = .08.

Figure 1b provides good support for Hypothesis 1: social media (T1) was positively associated with group consciousness (T1), $\beta = .92, p < .001$, which, in turn, was positively related to solidarity (T1), $\beta = .87, p < .001$. Table 3 displays the tests of the indirect effects. The standardized indirect effect for this contemporaneous mediation (within time-point) was significant (Hypothesis 1).

Figure 1b also provides support for Hypothesis 2. There were significant negative associations between Time 1 measures and the change scores, and significant positive associations between the Time 2 measures and the change scores. Figure 1b shows that, the latent change score for social media exposure was positively related to changes in group consciousness, $\beta = .80, p < .001$, which was positively related to changes in solidarity, $\beta = .71, p < .001$. Table 3 shows that the indirect effect of changes in social media on changes in solidarity through changes in group consciousness, is significant (Hypothesis 2).

Finally, regarding Hypothesis 3, Figure 1b shows that the changes in exposure to the issue through social media are predicted by feelings of distress, $\beta = .63, p < .001$, but not by fear (though it was marginal, $\beta = -.25, p = .07$). Table 3 shows that the indirect effect of distress on changes in solidarity through changes in social media and group consciousness was significant, but the indirect effect of fear was not. We tested an alternative model in which fear and distress were also allowed to predict changes in group consciousness; neither

of these paths were significant ($p > .05$). In all, these findings provide strong support for our hypotheses.¹

Discussion

The image of Aylan Kurdi provoked widespread but short-lived social and political change: what is the mechanism that connects online engagement with mobilization in support of refugees? How can we reconcile the outpouring of compassion with the apparent apathy in the year that followed? We used Latent Change Score models with data obtained at the peak of global solidarity, and one year later, to map intra-individual changes in levels of exposure to social media, group consciousness, and political solidarity. The results confirmed that engaging with content online was associated with the emergence of pro-refugee group consciousness, which, in turn, formed a psychological basis for political solidarity. Conversely, feelings of distress (but not fear) undermined continued engagement with the plight of refugees through social media which, in turn, eroded the sense of common cause (group consciousness) that had facilitated the action in the first place. In what follows we consider the implications for the literatures on social media, social and political change, and compassion fade.

Social Media Engagement Promotes Solidarity but Social Media Disengagement Leads to Compassion Fade

Our analysis identifies social media as a key driver of social and political changes witnessed in relation to the image of Aylan Kurdi (Vis and Gorinova, 2015; see also Castells, 2012; Margetts et al., 2016). Vis and Gorinova (2015) documented the dramatic reach of the image through social media and its effects, but we take a different tack here to demonstrate the psychological consequences of engagement with the image. Engagement with the image through social media allowed people to experience the plight of refugees as

illegitimate, feel justice-oriented emotions of sympathy and outrage, and believe in the efficacy of collective efforts. In doing so, those interactions engendered a sense of self as someone who wants to work with others to support refugees (pro-refugee social identification), encapsulating the most potent predictors of collective action (Thomas et al., 2012, 2015). As such, our findings are in line with other research showing that online platforms engender meaningful forms of civic and political engagement (e.g. Alberici and Milesi, 2013; Ekström and Östman, 2013; Smith et al., in press). They appear to do so (at least partly) because they allow for the intensification of new, collective identities (Kende et al., 2016; Odağ et al., 2016; Smith et al., 2015a; Thomas et al., 2015). Put differently, social media are important not just because they provide people with relevant political information and validate their opinions; social media play a role in constituting new forms of collective self-hood (Bennett and Segerberg, 2011, 2012).

However, changes in social media engagement were also associated with the *reductions* in group consciousness and, therefore, solidarity – a phenomenon Västfjäll, Slovic and colleagues term ‘compassion fade’ and which we consider as a form of demobilization. Online forms of engagement are often held to reflect low-cost, transient or insincere form of commitment and, at first glance, these findings might seem to support that analysis (Emmer et al., 2012; Morozov, 2009, 2011; Vissers et al., 2012). However, the key question that we have sought to address here is: *why* did people reduce their online interactions about Syrian refugees? We show that it was not a lack of sincerity that explains why they did so: rather, people felt distressed in the face of increasingly intractable nature of the disadvantage experienced by refugees. Just as sadness has been shown to undermine collective action in the context of an industrial dispute (Smith et al., 2008), similarly here the appraisal of loss and subsequent distress motivated withdrawal from the online environment (Lazarus, 2001). In the simplest terms: changes in online activities reflected the perceived realities of an

increasingly intractable political context. Of course, other factors are also likely to be involved in the reduction of social media engagement on this issue: changes in an individual's use of social media, competing news events, as well as changing algorithms driving social media news feeds. Nevertheless, our results suggest that the online world is not immune to the demobilizing effects of a long-term struggle for equality any more than the offline world is. Just as stable individual differences (personality; Correa et al., 2010) can predict patterns of social media use and responding, so too it is important to look at the social and political context to understand patterns of heated interaction online and their decline.

Explaining (De)Mobilization For Social Change

The current research also has implications for broader theorizing of social and political change. First, we focused on explaining the rapid emergence and decline of action rather than responses to entrenched or longstanding disadvantage. This is not to say that the events of the refugee crisis were not precipitated by diverse historical, social and geo-political events (not least, the Arab Spring; McGarty et al., 2014); but rather, the reaction to the image of Aylan Kurdi was remarkable *because* of the absence of concerted solidarity action previously (Slovic et al., 2017). In Livingstone's (2014) terms, these were events that were marked by *discontinuous change*. Livingstone (2014) argued that current models of collective action do not adequately explain the rapid emergence of action because they fail to account for the changes that occur within people that catalyze them to engage or disengage. Our use of latent change score models speaks specifically to this point, whereby we modelled *changes* in the (within person) patterns of social media engagement, group consciousness and solidarity to develop a more dynamic perspective on (de)mobilization. That is, we developed an analysis of the role of social media in explaining the transition from inaction to action, and back again.

Our research is also unique in explaining mobilization and demobilization (compassion fade) as two sides of a group process. Although there is a growing literature on the factors that promote mobilization (e.g., around humanitarian disadvantage; see Reicher et al., 2006; Thomas et al., 2016), this literature does not fully explain why responses are not sustained (Thomas et al., 2009; but see Klandermans and van Stekelenburg, 2014, Tausch and Becker, 2013, for exceptions). Similarly, we extend research on compassion fade to show that reductions in solidarity are associated with changes in sympathy, *in combination with* other group-level attributes (social identification, group efficacy and outrage denoting illegitimacy; van Zomeren et al., 2008). As such, compassion fade can be understood to have group level, as well as inter-individual (Small et al., 2007) and individual neurological (Genevsky et al., 2013) drivers. The current findings also extends the importance of affect in the online world, showing that mobilization is both created (in the case of sympathy) and undermined (in the case of distress) by affective, emotional responses to disadvantage (Slovic et al., 2017; Västfjäll et al., 2014; Västfjäll et al., 2015).

Limitations and Future Research

We undertook data collection at a unique point in history and the rapidity with which we were required to organize our research efforts lead to problems during data collection, producing missing data on the Time 1 social media variables. We adopted the gold standard method of addressing these missing data (FIML; Enders and Bandalos, 2001) but this is nevertheless a limitation of the current research. It is also the case that our sample was comprised of people recruited through the mailing lists of non-governmental organizations and, as such, was not a representative one. Nevertheless, we note that four out of five Australians (80.8%) engage in charitable support (and are subscribed to similar mailing lists; Philanthropy Australia, 2017). We therefore expect that the pattern of results observed here would generalize to a more representative sample, with one exception: Fear about the

ostensible threat posed by refugees was a marginal predictor here and might be shown to play a role in undermining online engagement in a more diverse sample (Iyer et al., 2014; Miller et al., 2009). Future research might consider the role of specific emotions in facilitating versus undermining engagement with civic and political issues online, as well as in driving different forms of support (Thomas and McGarty, in press). Encountering injustice and disadvantage is a key antecedent to participation in activism and distress is just one of many factors that may shape (dis)engagement (see Duncan, 2012).

Social media engagement is frequently measured via self-report (see Skoric et al., 2016) as we have done here, but future research should also seek to triangulate observed measures of social media engagement in order to assess the impacts of different forms of engagement (e.g. likes, comment) and content of those interactions (e.g., Smith et al., in press) on attitudes and behavior. Further, our measures of social media engagement did not distinguish between what might be termed informational and interactive uses of the online environment (Alberici and Milesi, 2013; Ekström and Östman, 2013; Skoric et al., 2016). Interactions that affirm one's worldview are likely to be more powerful engines of group formation than mere information exchanges (Kende et al., 2016; following Smith et al., 2015b). In a similar vein, we measured the degree to which participants believed that the actions of other Australians could effectively improve the situation for Syrian refugees, but it might be useful to also consider how online interactions shape the perceived efficacy of the supporter group more generally. Future research might seek to address these questions and consider the ways in which social media might buffer against feelings of distress and intractability, to promote sustainable mobilization.

Finally, we articulated our aims against the backdrop of research on the identifiable victim effect which suggests that one identifiable victim elicits greater feelings of sympathy than do groups of statistical victims (Slovic et al., 2017; also Lee and Feeley,

2016). However, it is also the case that the victim here was a child. It is possible that the initial affective response would not have been as great if the image was of a single, identified adult (as per Haslam, Rothschild and Ernst, 2000; see also Goff, Jackson, Di Leone, Culotta and DiTomasso, 2014).

The current research adopted the insights of Duncan's (2012) integrated model which provides a valuable framework for considering the intersection of personality, life experiences (exposure through social media), as well as group level factors (group consciousness) in explaining participation in efforts to achieve social change. In this study, we tested the role of social media engagement as a life experience, and the causal pathway from media engagement to solidarity through group consciousness. However, the review provided by Duncan (2012) suggests other relevant factors (e.g., openness to experience, individual differences in ideology, changes in life circumstances or material wealth) and also theorizes reciprocal feedback loops whereby engagement in action shapes personality and group consciousness (see also Thomas et al., 2016). It follows that reductions in solidarity may also erode relevant personality and group-level factors, implying that compassion fade might also shape disengagement through social media. Future research could use the framework provided by Duncan's (2012) integrated model to consider other factors, and how these dynamically inter-relate to promote sustainable engagement with the plight of disadvantaged groups through social media.

Concluding Comments

The image of Aylan Kurdi promoted a global (but, distressingly, short-lived) outpouring of support for Syrian refugees. Theorizing within the decision, social psychological, political and communication sciences suggests that the kind of discontinuous, spontaneous, and global reaction to the image of Aylan Kurdi is likely to become more

commonplace in this digital age (e.g., Bennett and Segerberg, 2011, 2012; Margetts et al., 2016). The social, psychological and political sciences are in a strong position to contribute to an understanding of these events and in doing so contribute to redress for some of the world's most disadvantaged people. However, there is an urgent need to better understand how group consciousness can be sustained through social media, and compassion fade avoided, if we are to facilitate long-term, positive social change.

Endnote

¹One potential concern is that some of the standardized regression coefficients are greater than one (Figure 1b). However, it is a common misconception that the coefficients in a completely standardized solution must be smaller than one (see Jöreskog, 1999).

References

- Alberici AI and Milesi P (2013) The influence of the Internet on the psychosocial predictors of collective action. *Journal of Community and Applied Social Psychology* 23: 373-388.
- Bandura A (2000) Exercise of human agency through collective efficacy. *Current Directions in Psychological Science* 9: 75-78.
- Bliuc AM, McGarty C, Reynolds K et al. (2007) Opinion-based group membership as a predictor of commitment to political action. *European Journal of Social Psychology* 37: 19-32.
- Bliuc AM, McGarty C, Thomas E et al. (2015) Public division about climate change rooted in conflicting socio-political identities. *Nature Climate Change* 5(3): 226-229.
- Bolt A (2015) Syrian refugee crisis: Tragic boy Aylan Kurdi needs more than tears. *Herald Sun*, September 6. Available at: <http://www.heraldsun.com.au/news/opinion/andrew-bolt/refugee-crisis-little-boy-needs-more-than-tears/news-story/>
- Cameron JE (2004) A three-factor model of social identity. *Self and Identity* 3(3): 239-262.
- Castells M (2012) *Networks of outrage and hope: Social movements in the internet age*. Polity Press: Cambridge, UK.
- Chan M and Guo J (2013) The role of political efficacy on the relationship between Facebook use and participatory behaviors: A comparative study of young American and Chinese adults. *Cyberpsychology, behavior, and social networking* 6: 460-463.
- Christensen L and Mendoza JL (1986) A method of assessing change in a single subject: An alteration of the RC index. *Behavior Therapy* 17(3):305-308.

- Correa T, Willard Hinsley A, Gil de Zúñiga H (2010). Who interacts on the web? The intersection of users' personality and social media use. *Computers in Human Behavior* 26: 247-253.
- Dong Y and Peng, CYJ (2013) Principled missing data methods for researchers. *SpringerPlus* 2, 222. DOI:10.1186/2193-1801-2-222.
- Dumas D (2016) Aylan Kurdi photo triggered 3000 percent rise in Australian charity to World Vision: Time Costello. *The Sydney Morning Herald*, 02 March.
- Duncan LE (1999) Motivation for collective action: Group consciousness as mediator of personality, life experiences, and women's rights activism. *Political Psychology* 20(3): 611-635.
- Duncan LE (2012) The psychology of collective action. In Deaux K and Snyder M (eds) *The Oxford handbook of personality and social psychology*. New York: Oxford University Press 781-803.
- Enders CK (2010) *Applied Missing Data Analysis.*, New York: The Guilford Press
- Enders CK and Bandalos, DL (2001) The relative performance of Full Information Maximum Likelihood estimation for missing data in Structural Equation Models. *Structural Equation Modeling* 8: 430–457. DOI:10.1207/S15328007SEM0803_5
- Ekström M and Östman J (2013) Family talk, peer talk and young people's civic orientation. *European Journal of Communication* 28: 294-308.
- European Stability Initiative (2015). *Why people don't need to drown in the Aegean. A policy proposal*. Available at:
www.esiweb.org/index.php?lang=en&id=156&document_ID=168
- Gale P. (2004) The refugee crisis and fear: Populist politics and media discourse. *Journal of Sociology*. 40:321-40.

- Genevsky A, Västfjäll D, Slovic P et al. (2013) Neural underpinnings of the identifiable victim effect: Affect shifts preferences for giving. *Journal of Neuroscience*, 33(43): 17188-17196.
- Gil de Zúñiga HG, Puig-I-Abril E, Rojas H (2009) Weblogs, traditional sources online and political participation: an assessment of how the Internet is changing the political environment. *New Media & Society* 11(4): 553–574
- Gladwell M (2010) Small change: Why the revolution will not be tweeted. *New Yorker*, 04 October.
- Goff, P. A., et al. (2014). The essence of innocence: Consequences of dehumanizing Black children. *Journal of Personality and Social Psychology* 106(4): 526-545.
- Goldberger B, Moakley P and Pollack K (2016) Time 100 Photos. *Time*. Available at: <http://100photos.time.com/about>
- Hall RJ, Snell AF and Foust MS (1999) Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods* 2: 233-256.
- Haslam, N., Rothschild, L., and Ernst, D. (2000). Essentialist beliefs about social categories. *British Journal of Social Psychology* 39: 113–127. doi:10.1348/014466600164363
- Iyer A, Webster J, Hornsey MJ et al. (2014) Understanding the power of the picture: The effect of image content on emotional and political responses to terrorism. *Journal of Applied Social Psychology* 44(7): 511-521.
- Jöreskog KG (1999) How large can a standardized coefficient be. Unpublished Technical Report. Available at: www.ssicentral.com/lisrel/techdocs/HowLargeCanaStandardizedCoefficientbe.pdf

- Kende A, van Zomeren M, Ujhelyi A et al. (2016). The social affirmation use of social media as a motivator of collective action. *Journal of Applied Social Psychology* 46: 453-469.
- Kinglsey P (2016) The death of Aylan Kurdi: One year on the compassion for refugees fades. *The Guardian*, September 2. Available at:
<https://www.theguardian.com/world/2016/sep/01/alan-kurdi-death-one-year-on-compassion-towards-refugees-fades>
- Klandermans B and Van Stekelenburg J (2014) Why people don't participate in collective action. *Journal of Civil Society* 10: 341-352.
- Koc-Michalska K., Lilleker DG, & Vedel T (2016). Civic political engagement and social change in the new digital age. *New Media & Society* 18(9): 1807-1816.
- Kogut T and Ritov I (2005) The "identified victim" effect: An identified group, or just a single individual? *Journal of Behavioral Decision Making* 18(3): 157-167.
DOI:10.1002/bdm.492
- Lazarus RS (2001) Relational meaning and discrete emotions. In Scherer KR, Schorr A and Johnstone T (eds) *Appraisal processes in emotion: Theory, methods, research*. New York: Oxford University Press, 37-67.
- Lee S and Feeley TH (2016) The identifiable victim effect: A meta-analytic review. *Social Influence*, 11(3): 199-215.
- Livingstone A (2014) Why the psychology of collective action requires qualitative transformation as well as quantitative change. *Contemporary Social Science: Journal of the Academy of Social Sciences* 9: 121-134.
- Margetts, H., John, P., Hale, S., and Yasser, T. (2016). *Political turbulence: How social media shape collective action*. Oxford: Princeton University Press.

McArdle JJ (2009) Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology* 60: 577-605.

McGarty C, Thomas E, Lala G et al. (2014) New technologies, new identities, and the growth of mass opposition in the 'Arab Spring'. *Political Psychology* 35: 725-740.
DOI: 10.1111/pops.12060

Miller DA, Cronin T, Garcia AL et al. (2009) The relative impact of anger and efficacy on collective action is affected by feelings of fear. *Group Processes and Intergroup Relations* 12: 445-462.

Morozov E (2009) Iran: Downside to the "Twitter revolution". *Dissent* 56(4): 10-14.

Morozov E (2011) *The Net Delusion: The Dark Side of Internet Freedom*. New York: Public Affairs.

Muthén LK and Muthén BO (1998-2012) *Mplus User's Guide*. Seventh Edition. Los Angeles, CA: Muthén & Muthén.

Odağ, Ö, Uluğ, Ö.M and Solak N (2016) "Everyday I'm Çapuling": Identity and collective action through social network sites in the Gezi park protests in Turkey. *Journal of Media Psychology*, 28:148-159.

Philanthropy Australia (2017). Fast facts and statistics on giving in Australia. Available at:
<http://www.philanthropy.org.au/tools-resources/fast-facts-and-stats/>

Postmes T and Baym N (2005) Intergroup dimensions of the Internet. *Intergroup communication: Multiple perspectives* 2: 213-240.

Reicher S, Cassidy C, Wolpert I et al. (2006) Saving Bulgaria's Jews: An analysis of social identity and the mobilisation of social solidarity. *European Journal of Social Psychology* 36: 49-72.

- Rothwell, J (2016). Majority of Paris attackers used migration routes to enter Europe, reveals Hungarian counter-terror chief. *The Telegraph*. 2 October. Available at: <http://www.telegraph.co.uk/news/2016/10/02/majority-of-paris-attackers-used-migration-routes-to-enter-europ/>
- Saab R, Tausch N, Spears R et al. (2015) Acting in solidarity: Testing an extended dual pathway model of collective action by bystander group members. *British Journal of Social Psychology* 54(3): 539-560.
- Schubert TW and Otten S (2002) Overlap of self, ingroup, and outgroup: Pictorial measures of self-categorization. *Self and Identity* 1: 353-376.
- Schumann S and Klein O (2015) Substitute or stepping stone? Assessing the impact of low-threshold online collective actions on offline participation. *European Journal of Social Psychology* 45(3): 308-322. DOI: 10.1002/ejsp.2084
- Selig JP and Preacher KJ (2009) Mediation models for longitudinal data in developmental research. *Research in Human Development* 6: 144-164.
- Skoric MM, Zhu Q, Goh D et al. (2016). Social media and citizen engagement: A meta-analytic review. *New Media & Society*, 18: 1817-1839.
- Slovic P, Västfjäll D, Erlandsson A et al. (2017) Iconic photographs and the ebb and flow of empathic response to humanitarian disasters. *Proceedings of the National Academy of Science*, 114: 640-644.
- Small DA, Loewenstein G and Slovic P (2007) Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes* 102: 143-153.
- Smith HJ, Cronin T and Kessler T (2008) Anger, fear, or sadness: Faculty members' emotional reactions to collective pay disadvantage. *Political Psychology* 29(2): 221-246.

- Smith LGE, Gavin J and Sharp E (2015a) Social identity formation during the emergence of the occupy movement. *European Journal of Social Psychology* 45(7): 818-832. DOI: 10.1002/ejsp.2150
- Smith LGE, McGarty C and Thomas EF (in press) After Aylan Kurdi: How tweeting about death, threat and harm predict increased expressions of solidarity with refugees over time. *Psychological Science*.
- Smith LGE, Thomas, EF and McGarty C (2015b) "We must be the change we want to see in the world": Integrating norms and identities through social interaction. *Political Psychology* 36(5): 543-557. DOI: 10.1111/pops.12180
- Soper D (2016) *Free statistics calculators version 4.0*. Available at: www.danielsoper.com/statcalc/default.aspx
- Spears R, Lea M, Corneliusen RA et al. (2002) Computer-mediated communication as a channel for social resistance: The strategic side of SIDE. *Small Group Research* 33: 555-574.
- Subašić E, Reynolds KJ and Turner JC (2008) The political solidarity model of social change: Dynamics of self-categorization in intergroup power relations. *Personality and Social Psychology Review* 12: 330-352.
- Tausch N and Becker J (2013) Emotional reactions to success and failure of collective action as predictors of future action intentions: A longitudinal investigation in the context of student protests in Germany. *British Journal of Social Psychology* 52: 525-542. DOI:10.1111/j.2044-8309.2012.02109.x
- Tharoor I (2015). Were Syrian refugees involved in the Paris attacks? What we know and don't know. *The Washington Post*. November 17. Available at: <https://www.washingtonpost.com/news/worldviews/wp/2015/11/17/were-syrian-refugees-involved-in-the-paris-attacks-what-we-know-and-dont-know>

- Thomas EF, Mavor KI and 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 EF and McGarty C (in press) Giving versus acting: Using latent profile analysis to distinguish between benevolent and activist supporters of global poverty reduction. *British Journal of Social Psychology*.
- Thomas EF, McGarty C and Mavor KI (2009) Aligning identities, emotions, and beliefs to create commitment to sustainable social and political action. *Personality and Social Psychology Review* 13: 194-218.
- Thomas EF, McGarty C, Lala G et al. (2015) Whatever happened to Kony2012? Understanding a global Internet phenomenon as an emergent social identity. *European Journal of Social Psychology* 45: 356-367.
- Thomas EF, McGarty C, Reese G et al. (2016) Where there's a (collective) will there are (effective) ways: Integrating individual and group-level factors in explaining humanitarian collective action. *Personality and Social Psychology Bulletin* 42: 1678-1692. DOI: 10.1177/0146167216669134.
- Valeriani A and Vaccari C (2016). Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom. *New Media & Society* 18: 1857-1874.
- van Zomeren M, Postmes T and Spears R (2008) Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin* 134(4): 504-535.

Västfjäll D, Slovic P and Mayorga M (2015) Pseudoinefficacy: Negative feelings from children who cannot be helped reduce warm glow for children who can be helped.

Frontiers in Psychology 6: 1-12.

Västfjäll D, Slovic P, Mayorga M et al. (2014) Compassion fade: Affect and charity are greatest for a single child in need. *PLOS One* 9, e100115.

Vis F and Goriunova O (2015) The iconic image on social media: A rapid research response to the death of Aylan Kurdi. *Report as part of the 'Picturing the Social: Transforming our Understanding of Images in Social Media and Big Data Research' project.*

Available at: <http://visualsecialmedialab.org/blog/the-iconic-image-on-social-media-a-rapid-response-to-the-death-of-aylan-kurdi>

Wright SC, Taylor DM and Moghaddam FM (1990) Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology* 58: 994-1003.

Table 1. Means (standard deviations) of key variables at Time 1 and Time 2 and proportion of participants reliably increasing or decreasing according to the Reliable Change Index.

	Time 1 <i>M (SD)</i>	Time 2 <i>M (SD)</i>	Proportion of Ps increasing	Proportion of Ps decreasing	Proportion of Ps the same
Exposure to iconic image ^{#†}	77.8 _a %	60.3 _b %	26.5%	7.1%	66.3%
Time spent [†]	2.93 _a (1.53)	2.47 _b (1.36)	19.1%	48.7%	32.2%
Learned through social media ^{#†}	34.4% _a	41.4% _b	17.6%	10.4%	72%
Pro-refugee social identification	5.31 _a (1.28)	4.90 _b (1.30)	24.5%	57.3%	18.2%
Sympathy	6.20 _a (.89)	6.09 _b (.89)	17.3%	31.6%	51.1%
Outrage	4.81 _a (1.57)	4.69 _a (1.70)	34.6%	36.4%	29%
Group efficacy	5.63 _a (1.14)	5.19 _b (1.18)	19%	44.6%	36.4%
Psychological solidarity	3.20 _a (1.82)	2.98 _b (1.71)	26.9%	36.8%	36.3%
Self-reported solidarity action	1.64 _a (.41)	1.71 _b (.41)	27.1%	17.5%	55.4%
Intended solidarity	5.13 _a (1.51)	4.6 _b (1.44)	23.6%	54.1%	22.3%
Behavioral solidarity ^{#†}	74.4% _a	83.1% _b	18.4%	11.2%	70.4%
Distress	-	5.61 (1.19)	-	-	-
Fear	-	2.44 (1.47)	-	-	-

Note. Subscripts within each row denote that the means/proportions were different at $p < .05$.

[#] Denotes the proportion of participants who indicated that they had seen the image (exposure), learned about the issue through social media (learned) and had taken action to support Syrian refugees.

[†] Due to missing values on these variables, the repeated measures t-tests/chi-square tests and the RCIs for these items included a sub-set of the sample ($n = 115$).

Table 3. Summary of tests of indirect effects.

Indirect effect	Standardized Effect	S.E.	<i>p</i>
Social media T1 → Group consciousness T1 → Solidarity T1	.80	.080	<.001
ΔSocial media → ΔGroup consciousness → ΔSolidarity	.57	.20	.004
Fear → ΔSocial media → ΔGroup consciousness → ΔSolidarity	-.14	.11	.19
Distress → ΔSocial media → ΔGroup consciousness → ΔSolidarity	.36	.14	.009

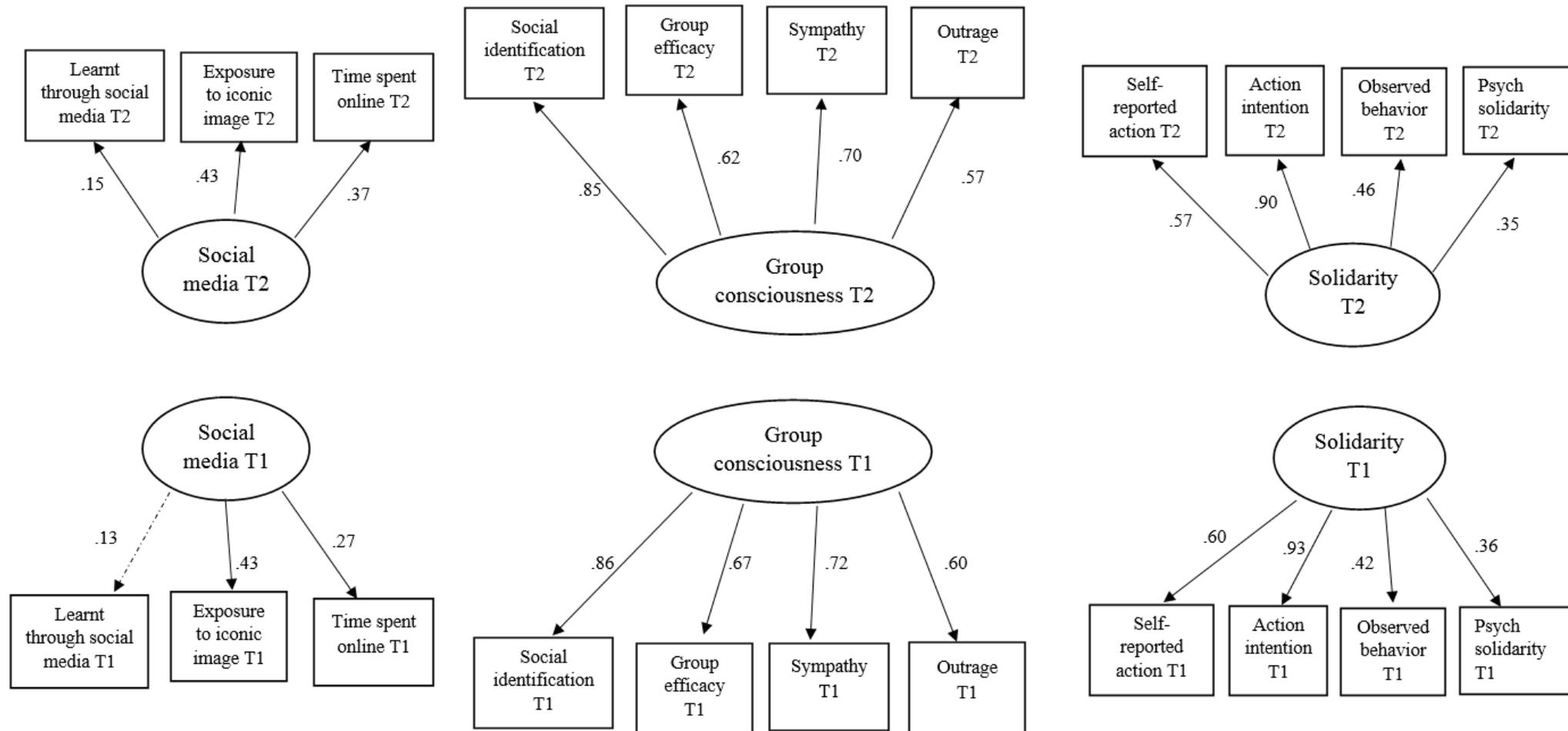


Figure 1a. Measurement model for latent change score model. Note that each measure was allowed to correlate with itself over time. All paths are significant at $p < .05$ except dotted line indicates path where $p > .05$.

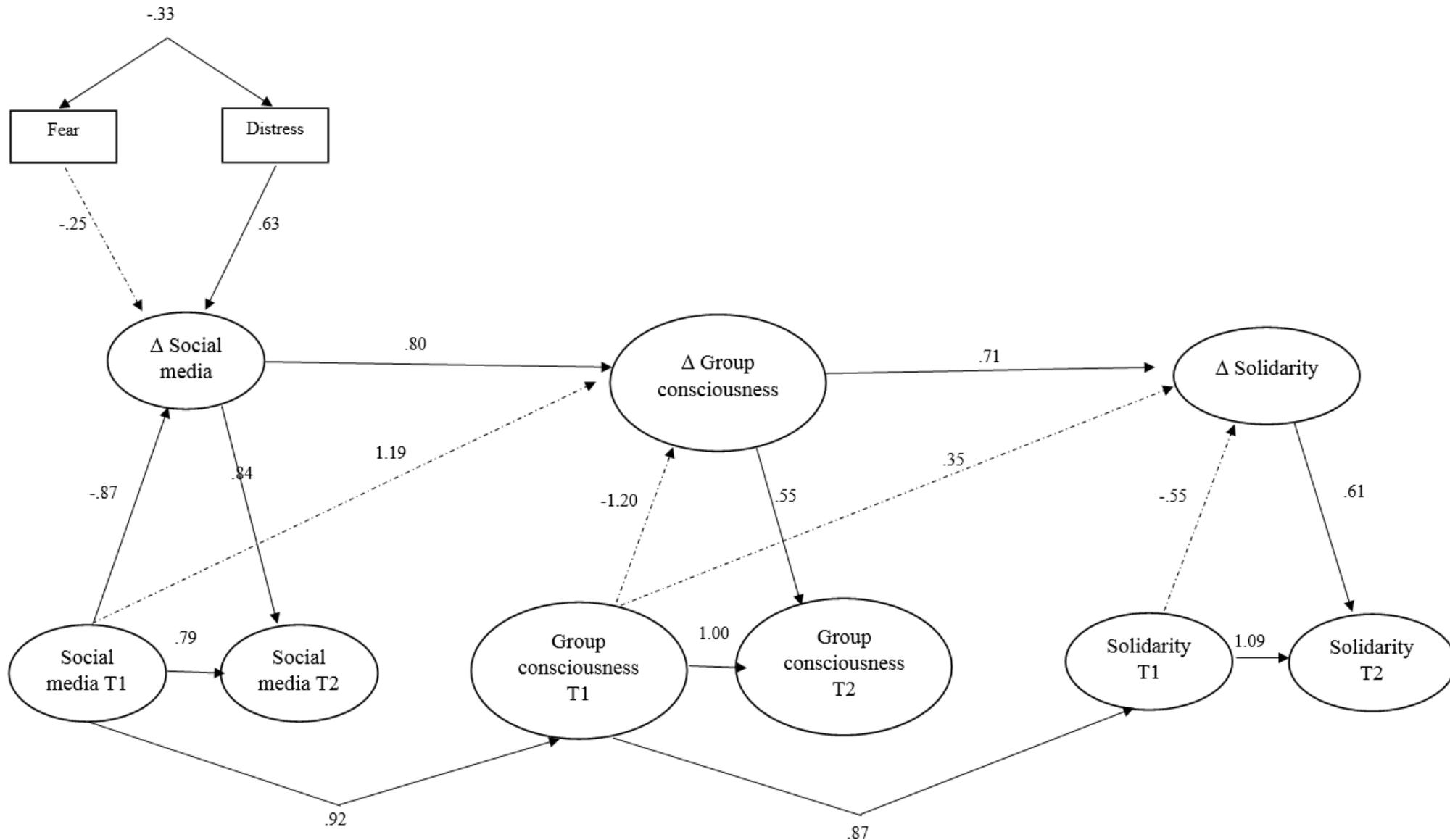


Figure 1b. Structural latent change score model. Dotted paths denotes paths that were not significant at $p > .05$. All other paths significant at $p < .05$. Fear correlated with social media T1, $\beta = -.60, p < .001$; distress correlated with social media T1, $\beta = .64, p < .001$.

