Research Article

Ethno-Network Homogeneity on Facebook: Does Friendship Demographic Composition Contribute to Users’ Wellbeing and Self-Esteem?

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Abstract: Social capital theory (Bourdieu, 1986) sees social benefits in friendship networks, particularly those comprised of densely close-knit relationships. Based on this premise, this study investigated the socio-psychological benefits – in terms of wellbeing and self-esteem – embedded in ethno-homogenous networks among Facebook users. The dynamic was further complicated with the inclusion of other network-related moderators of psychological welfare (that is, ethnic identity strength, narcissism, and social comparisons on Facebook). Only Facebook users (N = 160) who socially compared to their network or experienced higher scores of narcissism predicted psychological outcomes. Study findings continue to support social media studies that suggest shifts in wellbeing and self-esteem among Facebook users, but observed results contradict the belief that the socio-demographic structure of networks predicts the relationship (see Seder & Oishi, 2009). Obtained findings are explained under a social identity framework (Tajfel & Turner, 1986) and the unfavorable side of social capital (Portes, 1998).

Keywords: Facebook, social capital, network, wellbeing and self-esteem, ethnicity

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1. Introduction

1.1. The Problem

The maintenance of relationships as a core motivator for engaging with social networking sites (SNSs) has called into attention the benefits afforded by friends online (Ellison, Steinfield, & Lampe, 2007). Through a social capital framework (Bordieu, 1986), or the resources available in relationships, outcomes such as self-esteem and social support have been associated with SNS usage – particularly with Facebook (Steinfield, Ellison, & Lampe, 2008; Kim & Lee, 2011), which has consistently remained a dominant online activity among Internet users younger than 35 (Duggan & Brenner, 2013). With the understanding that online friends in SNSs are mostly comprised by pre-existing relationships offline (Zhao, Grasmuck, & Martin, 2008), there is reason to believe that such online networks reflect the socio-demographic composition of their offline networks. That is, SNS users’ tend to recreate the demographic homogeneity of their offline networks in nonymous online settings like Facebook given their tendency to engage with similar individuals like themselves (for review, see McPherson, Smith-Lovin, & Cook, 2001). Even more so, there is initial evidence to suggest that socio-homogeneity in online settings can enhance users’ wellbeing – at least this has been the case with ethno-racial homogenous friendship structures in Facebook (see Seder & Oishi, 2009). The present research thus seeks to further question how the structural composition of friends online may influence psychological outcomes, particularly understanding ethnically homogenous networks in SNS.

Centering on the psychological affordances of ethno-network homogeneity stems from the benefits embedded in interpersonal friendships. Friendship homogeneity inspires trust and fosters open interpersonal contexts (Bourdieu 1986; Coleman, 1988), which in turn, may cultivate
positive self-concept evaluations. More specifically to ethnicity, Friendship networks on Facebook can balance the numerical disparity of the macro U.S. context where ethnic minorities may feel at a disadvantage. This occurs as users in Facebook – a micro context – befriend and recreate the socio-demographic composition of their offline network where they may no longer be ethnic minorities if their friendship network is deeply homogeneous to them ethnically. Online ethno-network homogeneity indeed deserves further questioning. This research incorporates other variables not accounted for by Seder and Oishi (2009) crucial for socio-psychological outcomes in ethno-networks such as ethnic identity strength (Umaña-Taylor, 2004). But ethnographic-related factors are not enough to understand the dynamic; therefore, the present study also incorporated other network-related predictors of wellbeing and self-esteem (that is, Facebook social comparisons and narcissism).

1.2. Friendship (Ethno) Networks and Its Socio-Psychological Benefits

Online friends may provide multiple socio benefits under a social capital framework. When social networks are considered dense and experience overlapping ties, the friendship context can produce trust and cooperation, a shared sense of identity, or feelings of belongingness (Bourdieu, 1986; Coleman, 1988). Seder and Oishi (2009), consistent with the affordances of social capital, found that the ethno-racial homogeneous friendship networks among college-aged European Americans was associated with higher life satisfaction, positive affect (for instance, emotions such as enthusiastic, determined, or proud), and a experienced lower felt misunderstandings than those with ethnically-diverse networks. Walker (2015) observed that Facebook users experienced greater self-esteem the more they perceived Facebook as a self-affirming environment where they could be themselves. Walker’s findings support the claim of trust and openness attached to (online) networks, and even if they are not related to ethno-network homogeneity per se, the results do contribute to the socio-psychological affordances in networks. The next step is to elaborate on role of ethnicity in networks for a deeper dynamic.

Social identity theory (Tajfel & Turner, 1986) proposes that the interpersonal context dictates the worth placed on social identities. The estimated worth toward social identities is based on intergroup comparisons where individuals try to favor their ingroup at the expense of inferior outgroups. Positive self-concept assessments consequentially follow once favorable ingroup identities have been established. It must be noted, however, that not all share the same intensity toward their ethnicity as a social identity (Phinney, 1992), and the socio-demographic context appears to motivate ethnic identity strength. Umaña-Taylor (2004) offers some insights into this matter as she found how adolescents of Mexican descent varied in their ethnic identity according to the ethno-racial composition of their school. Youth attending a predominantly non-Latino school (i.e., 15% Latino) experienced the highest ethnic identities compared to adolescents attending an ethnically balanced school setting (i.e., 45% Latino) or one that was ethnically homogenous (i.e., 96% Latino). Umaña-Taylor additionally evaluated the self-esteem experienced by the adolescents and found no differences across the socio contexts. Such finding complicates the relevance of ethno-network homogeneity on Facebook suggesting that socio-demographic composition are not essential for shifts in psychological outcomes; yet, other research marks a correlation between ethnic identity strength and self-esteem (Goodstein & Ponterotto, 1997; Phinney & Chavira, 1993; Umaña-Taylor, 2002). Ethnic identity strength should therefore be incorporated in the ethno-network dynamic with wellbeing and self-esteem.

1.3. Ethnicity and Facebook

Ethnic minorities have gradually established an online presence compared to ethnically white Internet users. Particularly today, ethnic minorities consume social media at greater amount than the dominant ethnic group (Duggan & Brenner, 2013; uSamp, 2012). Grasmuck, Martin, and Zhao (2009) went beyond consumption and investigated the engagement of various ethnic groups on Facebook. Ethnic minorities were elaborate and deeply invested on their identity claims on Facebook than white Facebook users. Offline contextual explanations were suggested for the discrepancies on Facebook. Grasmuck et al. suggested that for ethnic minorities, interacting in a predominantly white college could have motivated them to saliently express their ethno-racial selves online as marginalized groups. Mora and Huang (2014), in contrast, found that Facebook users abstained from ethno identity displays on Facebook as such expressions did not hold the same social cache as taste preferences. Facebook users additionally felt that ethnicity was information that their online friends knew beforehand or that it could be visually obtained through photos. It is important to note that Facebook users in their sample interacted in at least ethno-networks that were at least 60% similar to themselves, thus explaining to a degree the
significance users placed on ethnicity. Based on the literature, ethnic minority status of users is then integral in understanding Facebook commitment, but Facebook engagement and consumption have been statistically related to wellbeing and self-esteem among users (Kalpidou, Costin, & Morris, 2011; Mehdizadeh, 2010). In the presence of such relationships, incorporating both users’ ethnic majority/minority and their Facebook commitment should render nuanced insights into psychological outcomes.

1.4. The Proposed Model

The preceding model summarizes the expected relationships based on the literature on ethnicity, network homogeneity, Facebook, and psychological welfare – in this study, understood as the psychological socio-benefit embedded in friendship networks relating to wellbeing and self-esteem.

Figure 1. Proposed model of the current study

First, the ethnic status of Facebook users is not only expected to predict how salient their ethnic identity is to them (Chae, 2000; Phinney & Alipuria, 1990), but it should also predict their Facebook commitment (Duggan & Brenner, 2013; Grasmuck, Martin, & Zhao, 2009). Yet, on both instances, ethnic minorities are at the forefront. It is then anticipated that:

H1: Ethnic minority Facebook users experience significantly higher ethnic identities than ethnically white users.

H2: Ethnic minority Facebook users are more committed to Facebook than their ethnically white counterparts.

Next, favorable psychological outcomes can be a product of ethno-network homogeneity (Seder & Oishi, 2009), Facebook users’ affinity toward their ethnic identity (Phinney, 1992), or even from users’ Facebook commitment as some social media studies have started to suggest (Gonzales & Hancock, 2011; Kang, Chung, Mora, & Chung, 2013; Kim & Lee, 2011). On this regard, then:

H3: Facebook users with stronger ethnic identities will experience higher psychological welfare (i.e., well-being and self-esteem).

H4: With more commitment to Facebook comes more psychological welfare.

It must be noted nonetheless, that online ethno-network homogeneity tends to recreate the same structural composition of Facebook users’ offline networks (McPherson, Smith-Lovin, & Cook, 2001), especially if online friends are anchored by already existing friendships offline (Zhao, Grasmuck, & Martin, 2008). Hence,
H5: Facebook network homogeneity tends to mimic that of users’ offline friendships.

If ethno-network online homogeneity parallels that offline, then:

H6: Both (a) offline and (b) online ethno-network homogeneity will be positively related to psychological welfare.

But the socio context has been related to ethnic identity strength, with network structures densely ethnically homogeneous predicting lower ethnic identity strength (Umaña-Taylor, 2004). In this case,

H7: Both (a) offline or (b) online ethno-network homogeneity will be negatively related to ethnic identity strength.

1.5. The story continues: Popular predictors of psychological outcomes among Facebook users

Wellbeing and self-esteem effects are not novel in Facebook research. Such psychological outcomes have been linked to Facebook usage (Kalpidou, Costin, & Morris, 2011), associated with particular profile content (Mehdizadeh, 2010), as users compare to others (Chou & Edge, 2012; Gonzalez & Hancock, 2011; Kang, Chung, Mora, & Chung, 2013), predicted by number of friends and type of self-presentation (Kim & Lee, 2011), tone of profile feedback ( Valkenburg, Peter, & Schouten, 2006), communication overload (Chen & Lee, 2011), and even predicted by high degrees of ethnic homogeneity in users’ friendship networks (Seder and Oishi, 2009). Predominantly and consistently, the literature highlights a decline in self-esteem or wellbeing when it comes to Facebook engagement; yet, a paucity of studies has reported a favorable effect on wellbeing and self-esteem (Gonzales & Hancock, 2011; Kim & Lee, 2011; Seder & Oishi, 2009).

Internet users unquestionably gravitate toward Facebook in order to satiate a need to belong or for maintaining relationships online (Ellison et al., 2007; Nadkarni & Hofmann, 2012; Pempek, Yermolayeva, & Calvert, 2009). As a friendship network is substantiated on Facebook, it slowly becomes an audience who users’ can present their personas through implicit or explicit identity claims (Zhao, Martin, & Grasmuck, 2008) – a process documented as self-presentation (Goffman, 1959). Facebook users may adopt a multitude of self-presentation strategies at times exaggerating or tailoring their self-presentations masking disappointing events for self-serving ones. Other times, the audience (or Facebook users’ friends) does the overestimation on their own, oftentimes feeling bad when they perceive Facebook users lives as being happier than what they appear to be (Chou & Edge, 2012). The danger in the social nature of Facebook lies in the social comparison users perform since this may prompt self-concept evaluations (Gonzalez & Hancock, 2011), and depending on how they socially compare, Facebook users can either boost or diminish their wellbeing or self-esteem (Kang et al., 2013).

Relationship maintenance is not the only motivation driving Internet users to Facebook, but a paucity of studies additionally indicate ego-centered or self-promotion dispositions behind users’ engagement (Carpenter. 2012; Joison, 2008; Mehdizadeh, 2010). Narcissism has been positively associated with self-promotional Facebook content such as users’ profile photo or status updates (Mehdizadeh, 2010). Carpenter (2012) also found that two dimensions of narcissism – grandiose exhibitionism and entitlement/exploitativeness – predicted self-promotion behaviors (e.g., status updates, photographs of oneself, or profile updating), number of Facebook friends, and social support differently.

Why incorporate users’ narcissistic tendencies and their social comparisons on Facebook alongside ethno-network homogeneity? The link is better observed when networks are treated as audiences. Narcissistic Facebook users take advantage of an audience, and the grander it is, the better. When social comparisons on Facebook occur, the user becomes the audience of his/her network (un)consciously consuming content that inspire self-concept assessments. On another regard to networks, both dynamics also provide a point of contrast to the social capital framework that posits networks as fostering trust, togetherness, and emotional intimacy (Bourdieu, 1986; Coleman, 1988). While all are considered to predict self-esteem, a relevant question is:

RQ1: Does ethno-network homogeneity predict psychological welfare after controlling for socially comparing on Facebook and users’ narcissism?
2. Methods

2.1. Data collection and research sample

Data was collected via an online snowball sample during September 2014 for a period of two weeks. A survey link was originally sent to the graduate coordinator of the author’s academic department who then distributed the link to her network of staff, faculty, and students. Only Facebook users between the ages of 18 to 34 were targeted by this study as this age cohort represents the highest consumers of social networking sites (Duggan & Brenner, 2013). The survey received 324 responses, but after deleting incomplete questionnaires (n = 164), only 160 cases were deemed proper for the study. Participation in the study was completely voluntary.

Table 1 presents relevant descriptive statistics of the current sample, which was primarily comprised of a student population (70%). (Non)students were equally distributed in regards to gender (χ²(2) = 0.37, p = 0.83), education (χ²(12) = 17.62, p = 0.13), and income (χ²(12) = 20.81, p = 0.05), but non-students tended to be slightly older (M = 28.60, SD = 3.22) than those currently enrolled at a college or university (M = 26.22, SD = 3.99), t(90.76) = -3.81, p < .001. Notwithstanding the homogeneity in the sample, Facebook users had a mean age of 26.88 (SD = 3.85), were predominantly female (73.1%), had an income between $20,001 and $40,000 (38.8%), or belonged to an ethnic majority group (53.1%) – that is, were European-American.

Table 1. Sample Demographics (N = 160)

<table>
<thead>
<tr>
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<th>% of N</th>
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<tbody>
<tr>
<td>Gender</td>
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</tr>
<tr>
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<tr>
<td>Ethnicity</td>
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<td>Education</td>
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<td>Masters or Above</td>
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</tr>
<tr>
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<tr>
<td>$80,001 to $100,000</td>
<td>9</td>
<td>5.6</td>
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<tr>
<td>$100,001 to $150,000</td>
<td>9</td>
<td>5.6</td>
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<tr>
<td>$150,001 +</td>
<td>5</td>
<td>3.1</td>
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</tbody>
</table>

2.2. Measures

Psychological welfare. Subjective wellbeing and self-esteem measures were combined to assess psychological welfare. Participants answered three items about subjective wellbeing from the Annual Population Survey (2012). Study participants were asked on a nine-point Likert scale (1 = not at all, 9 = to a great extent): “After using Facebook on a typical day, (a) to what extent have you felt things are worthwhile, (b) your satisfaction with life nowadays, and (c) how happy you felt yesterday.” Four additional items evaluated self-liking self-esteem, which measures a specific dimension of self-esteem rather than a global assessment toward the self-concept (Tafarodi & Swann, 1995). On an agreement nine-point Likert scale (1 = strongly disagree, 9 = strongly agree),
participants were asked, “After using Facebook on a typical day: (d) I feel comfortable about myself (e) I have a negative attitude toward myself, (f) I like myself, and (g) I feel worthless at times.” A confirmatory factor analysis (CFA) indicated that all seven items correlated and measured one single factor of psychological welfare, which higher scores indicated ($\alpha = .85, M = 6.55, SD = 1.62$).\footnote{Items (c) and (g) were reversed coded to indicate higher scores psychological welfare.}

**Ethno-network homogeneity.** The ethno-social demographic composition of Facebook users was measured through two separate items. One measured their online ethno-network homogeneity, while other measured those outside Facebook as they answered the following: “Thinking about all your friends, what % best describes the amount of them who share the same ethnic/racial background as you in (a) Facebook and (b) offline.” Scores could reach up to 100% on a slider scale. Study participants indicated a moderate degree of homogeneity either online ($M = 61.30, SD = 21.64$, $range = 0 – 100$) or offline ($M = 62.01, SD = 25.85$, $range = 0 – 100$).

**Ethnic identity strength and minority status.** Two items from the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992) sought to capture Facebook users’ ethnic identity saliency on a nine-point agreement Likert scale ($1 = $ strongly disagree, $9 = $ strongly agree): (1) My ethnicity is important for my self-definition, and (2) My ethnicity is central to who I am. Both items were highly correlated according to Spearman-Brown correlations ($r = .76, p < .01$); and were combined to encompass ethnic identity strength ($M = 5.42, SD = 2.23$). Facebook users who reported being ethnic minorities were coded as $1$, whereas ethnically white ethnic users were treated as ethnic majorities and coded with a $0$. Table 1 offers an ethnic demographic breakdown of the sample.

**Facebook social comparisons.** Gibbons and Buunk’s (1999) Social Comparison Orientation Scale provided three items in which to evaluate Facebook users’ social comparison behaviors on Facebook. For instance, users were asked on a nine-point agreement Likert scale ($1 = $ strongly disagree, $9 = $ strongly agree), “On Facebook, I often compare how I am doing socially (e.g., social skills, popularity) with other people.” A CFA determined that the three items collectively characterized one factor ($\alpha = .76, M = 4.47, SD = 2.18$).

**Narcissism.** The Narcissistic Personality Inventory (Raskin & Terry, 1988) provided three items to estimate Facebook users narcissism using a nine-point agreement Likert scale ($1 = $ strongly disagree, $9 = $ strongly agree). One sample item is, “I really like to be the center of attention.” Another CFA indicated that the three items addressed narcissism ($\alpha = .74, M = 4.44, SD = 1.87$).

**Facebook commitment.** Facebook usage and engagement sought to capture users’ commitment with Facebook. Facebook use was measured on a six-point Likert scale ($1 = $ never, $6 = $ multiple times a day). Considering that users employ a variety of identity claims in online contexts (Zhao, Grasmuck, & Martin, 2008), especially ethnic groups (Grasmuck, Martin, & Zhao, 2009; Mora & Huang, 2014), post frequencies relating to social identities, tastes, and other banal activities captured users’ Facebook engagement on a 11-point Likert scale ($0 = $ never, $10 = $ always): (a) sexual orientation, (b) religion/spirituality, (c) social economic class, (d) disabilities, (e) political orientation, (f) nationality, (g) gender, (h) ethnicity/race/culture, (i) age generation (e.g., X, Y, ñ), (j) pop culture, (k) food, (l) indoor activities, (m) outdoor activities, (n) sports, and (o) social events/gatherings (e.g., going to the movies, parties, lunch).\footnote{Facebook users had 0 scores in posts regarding religion/spirituality, political orientation, nationality, and those dealing with food. These were consequently excluded from the CFA, which collectively measured one factor of post heterogeneity.} Since Facebook consumption ($M = 4.44, SD = 0.84$) and engagement ($\alpha = .82; M = 3.62, SD = 1.73$) were operationalized using different scales, both were measures were standardize. A Spearman-Brown correlation indicated a positive correlation between consumption and post diversity ($r = .26, p < .01$), therefore these were combined to assess users’ Facebook commitment ($M = .01, SD = 0.79$).

### 3. Results

#### 3.1. Hypotheses

Before answering the study’s hypotheses and its research question, zero-order bivariate correlations were conducted to understand general associations among variables. Correlation results indicated that psychological welfare tends to be significantly associated with Facebook commitment ($r = .21, p < .01$), social comparisons on Facebook ($r = -.28, p < .001$), users’ narcissism ($r = .34, p < .001$), but not with their ethno-network homogeneity (see Table 2). The given results suggest that ethno-network homogeneity is not a strong predictor of psychological welfare contrary to what was expected. Structural equation modeling (SEM) was conducted to further test the statistical meaning of ethno-network homogeneity as previously proposed in Model 1.

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Eisinga, T., Te Grotenhuis, A., and Pelzer (2013) recommend Spearman-Brown correlations as opposed to Cronbach’s alpha ($\alpha$) for two-item factors.
A two-step SEM model was employed to assess the statistical dynamic of the variables (Kline, 2010). Step one, or a measurement model, supported that the latent variables (in this case, psychological welfare and ethnic identity strength) indeed addressed their observed constructs. The measurement model exhibited good fit according to fit statistics (Hooper, Coughlan, & Mullen, 2008; χ² = 32.83, p = .06; CFI = .98, TLI = .96, RMSEA = .06, SRMR = .05). Step two tested the actual paths indicated in the hypotheses. The structural model exhibited marginal fit (χ² = 114.39, p < .001; CFI = .92, TLI = .89, RMSEA = .08, SRMR = .07), hence supporting the proposed model to a questionable degree.

Seeing that Model 1 received moderate statistical support, the statistical meaning of ethno-network homogeneity on psychological welfare is not statistically relevant in this study. The observed finding could be due to the lack of statistical power in the small sample size, but despite the given limitation, some hypotheses were indeed supported in this study. Ethnic minority Facebook users tended to exhibit a more pronounced ethnic identity than ethnically white users.

Note: *** p < .001, ** p < .01, * p < .05

### Table 2. Zero-Order Pearson Correlations between Independent and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Ethnic Minority (1 = yes)</td>
<td>-</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>(2) Ethnic Identity Strength</td>
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<td>-</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(3) Facebook Commitment</td>
<td>.16*</td>
<td>.26**</td>
<td>-</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(4) Social Comparison</td>
<td>-.16*</td>
<td>-.01</td>
<td>.11</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Narcissism</td>
<td>.07</td>
<td>.27***</td>
<td>.30***</td>
<td>.14</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>(7) Facebook Ethnic Homogeneity</td>
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<td>-.07</td>
<td>-.03</td>
<td>.14</td>
<td>.03</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Offline Ethnic Homogeneity</td>
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<td>-.10</td>
<td>-.08</td>
<td>.08</td>
<td>.05</td>
<td>.70***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(9) Psychological Welfare</td>
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<td>.10</td>
<td>.21**</td>
<td>-.28***</td>
<td>.34***</td>
<td>.08</td>
<td>.09</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: *** p < .001, ** p < .01, * p < .05

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4 The measurement model recommended errors to correlate in the psychological welfare to improve fit. The errors between (f) and (g), (d) and (f), (e) and (g), plus those between (a) and (d) were thus correlated.
and had a deeper Facebook commitment (H_2). Moreover, Facebook commitment tended to positively related to psychological welfare (H_3). Lastly, the ethno-homogeneity observed on Facebook also tended to recreate the structural ethno-composition of user’s offline network (H_5). While not related to psychological welfare, findings nonetheless aid in explaining the role of ethno-network homogeneity in the matter as these elucidate on the presence of ethnicity on Facebook.

3.2. Research Question

RQ asked: How does ethno-network homogeneity compare to other popular moderators of wellbeing and self-esteem among Facebook users? Results from a three-step hierarchical linear regression showed that Facebook social comparisons (β = -.37, p < .001) as well users’ narcissism (β = .31, p < .001) predicted psychological welfare, whereas ethno-network homogeneity did not (see Table 3). Facebook users who socially compared on Facebook experienced lesser psychological welfare. Narcissistic Facebook users, in contrast, obtained greater psychological benefits. The statistically significant full model (F(7, 150) = 7.68, p < .001) shows that included predictors explain about 26.4% of the variance in psychological welfare. Ethno-network homogeneity contributed the least variance explained in psychological welfare (ΔR^2 = 1.4%) – again suggesting its faint meaningfulness in the dynamic. To answer RQ, predictors other than network composition traits were more statistically relevant toward the psychological welfare of Facebook users.

Table 3. Predictors of Psychological Welfare

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Full Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Ethnic Minority (1 = yes)</td>
<td>-.14</td>
<td>-.17*</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td>Ethnic Identity Strength</td>
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<td>.08</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Facebook Post Commitment</td>
<td>.20*</td>
<td>.16*</td>
<td>.17*</td>
</tr>
<tr>
<td>Step 2</td>
<td>Social Comparison</td>
<td>-.36***</td>
<td>-.37***</td>
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<td>Narcissism</td>
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<td>.31***</td>
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<tr>
<td>Step 3</td>
<td>Facebook Ethnic Homogeneity</td>
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<td></td>
<td>Offline Ethnic Homogeneity</td>
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</table>

Note: Entries are standardized regression coefficients (β) after variables entered the regression. *** p < .001, * p < .05

4. Discussion

The purpose of this study was to underscore the socio-psychological benefits within ethno-homogenous networks on Facebook, holding that friendship networks comprised of similar selves foster social settings that emanate trust, identity, and belongingness (Bourdieu, 1986; Coleman, 1988). While Seder & Oishi (2009) observed such findings, this was not the case here. Other prominent network-related factors (that is, socially comparing on Facebook or users’ narcissism) instead predicted psychological welfare among the sampled Facebook users. The small sample (N = 160) could have impaired relationships to emerge between ethno-network homogeneity and psychological welfare, but Umaña-Taylor (2004) also did not observe a statistical relationship

5 A t-test further attests to this group difference. Ethnic minority Facebook users had significantly higher ethnic identities (M = 6.75, SD = 195) then their ethnically white counterparts (M = 4.24, SD = 175), t(158) = 8.59, p < .001.

6 A t-test also supports this claim: ethnic minority user (M = 0.14, SD = 0.88); ethnic majority user (M = -0.10, SD = 0.69), t(156) = 2.04, p < .05. Note that scores are standardized.
between socio-demographic composition and self-esteem. Social identity theory offers tentative support for the statistical absence. Observed study findings thus complicate the dynamic of ethnicity, demographic structure, and psychological outcomes in an online setting.

Dense ethno-network homogeneity may have diluted the social relevance and subsequent socio-benefits of ethnicity on Facebook. Social identity theory (SIT) discusses that positive social identities are, in part, dictated by intergroup contrasts favoring ingroups against inferior outgroups (Tajfel & Turner, 1986). Under the SIT logic, due to the prominent ethno presence of the ingroup in Facebook, no ethnic group could be detected, consequently minimizing intergroup contrasts crucial for self-concept evaluations at the social identity level. Social settings contribute to the saliency and worthiness placed on ethnic social identities too (Umaña-Taylor, 2004). Facebook tends to recreate the ethno-homogeneity of users’ offline networks (H.), but as Mora and Huang (2014) noted, the already eminence of ethnicity in networks could have lead users to privilege other social and personal identities that more suitably establish social capital benefits or positive points for group differentiation.

The social worth of ethno-network homogeneity, and therefore embedded psychological benefit in networks (Bourdieu, 1986; Coleman, 1988), is further questioned as ethnic identity strength was also not related to psychological outcomes on Facebook. Unquestionably, Facebook users reported salient ethnic identities, and consistent with the literature (Chae, 2000; Phinney & Alipuria, 1990), ethnic minority Facebook users experienced higher ethnic identities than white Facebook users (H.). Yet, the socio-demographic structure of users’ Facebook networks did not predict ethnic identity strength (Umaña-Taylor, 2004) or psychological welfare (Seder & Oishi, 2009). Likewise, Facebook users’ users’ Facebook networks did not enact (Mora & Huang, 2014) or unmotivated to feel strong attachments to it. Umaña-Taylor (2004) even observed that youth in ethnically homogenous school settings experienced less salient ethnic identities that those attending ethnically balanced or heterogeneous schools. This study lends further support to that preposition in an online setting; nonetheless, ethnicity remains a conundrum in Facebook. Some studies posits group differences on Facebook (Duggan & Brenner, 2013; Grasmuck, Martin, & Zhao, 2009; uSamp, 2012); however, this study suggests that ethnicity – when taken into a social context level – presents questionable insights regarding its socio and psychological benefits.

Ethno-network homogeneity was contrasted against other network-related factors to further evaluate its viability on psychological welfare. Ethno-network homogeneity again did not predict the relationship whereas socially comparing on Facebook and users’ narcissism did. Ethno-network homogeneity – either online or offline – was not even statistically related to other studied factors (for correlations, see Table 2). The lack of statistical correlations again are possible given the small number of study participants; nonetheless, the evidenced relationships speak against the social context as anticipated (Goodstein & Ponterotto, 1997; Phinney & Chavira, 1993; Umaña-Taylor, 2002). The absence of such relationships again, according to SIT, are attributed to the social context ethnicity was placed on, which in turn, determines the meaning and benefits toward social identity. Ethnic identities for Facebook users could have been ignored considering that on taken in Facebook users had 60% ethno-homogeneous networks, hence unnecessary to enact (Mora & Huang, 2014) or unmotivated to feel strong attachments to it. Umaña-Taylor (2004) even observed that youth in ethnically homogenous school settings experienced less salient ethnic identities that those attending ethnically balanced or heterogeneous schools. This study lends further support to that preposition in an online setting; nonetheless, ethnicity remains a conundrum in Facebook. Some studies posits group differences on Facebook (Duggan & Brenner, 2013; Grasmuck, Martin, & Zhao, 2009; uSamp, 2012); however, this study suggests that ethnicity – when taken into a social context level – presents questionable insights regarding its socio and psychological benefits.

Observed findings call into attention the unfavorable side of networks (for review, see Portes, 2000) – here being the outcomes of socially comparing to a network. While Facebook users may perceive their (ethno) network as intimate and emotionally un-threatful, their psychological welfare suffers despite the positive friendship context created as they are perhaps over-estimating their networks happiness (Chou & Edge, 2012). Excessive narcissism tentatively offers a cocoon against such unwanted self-concepts evaluations as networks are treated more as publics than actual friends, therefore problematizing the meaning of networks in social capital. Both findings on psychological welfare support the findings of other Facebook studies and its influence on self-esteem and wellbeing (Chen & Lee, 2011; Kalpidou, Costin, & Morris, 2011; Kim & Lee, 2011), particularly in regards to social comparisons on Facebook (Gonzalez & Hancock, 2011; Kang, Chung, Mora, & Chung, 2013) and users’ narcissism (Carpenter. 2012; Mehdizadeh, 2010).

Looking specifically at ethnicity and networks, ethno-network heterogeneity existed in to some degrees in users’ networks since their friends were not entirely the same ethnically to them. Observing that inter-ethnic friendships existed on Facebook, some Facebook users could have adopted a color-blind worldview on friendships, and in the process, disregarded ethnicity or race as a means of obtaining socio-psychological benefits. Color-blind ideologies are troublesome in that they offer an egalitarian myth that ethnicity or race no longer matter (Gallagher, 2003).
Because ethnicity and race is diluted through post-racial ideologies like color-blindness, other social identities are treated more meaningful for relationship maintenance than ethnicity or race (Mora & Huang, 2014). This is of course speculatively speaking; as a consequence, this prompts social media studies to consider color-blindness online and its role in friendships.

4.1. Limitations & research suggestions
Numerous limitations exist that prevent the extant findings from being generalizable. With the understanding that a large sample is ideal given its approximation to the population, the small sample size is therefore among the most noticeable limitation in this study. The small sample size then possibly opaqued expected correlations. Sampling technique is another limitation. Even though a convenient sample could have increased the number of participants, the study sought to recruit participants away from a school setting via a snowball strategy. Although there were no major differences in terms of gender, income, or education between college/university students and non-students, a greater amount of non-student participants could have fashioned a deeper understanding of Facebook among those who operate away from the stress of school. The current sample is consequently not representative of either students or non-student Facebook users. Another methodological limitation lies in the self-report measures, especially that of ethno-network homogeneity. That is, Facebook users could have over- or under-estimated the demographic composition of their Facebook friends, hence masking their potential effects on psychological welfare. Lastly, the cross-sectional nature of the data also presents another limitation as causality cannot be established or exposed.

More careful consideration should be given to study measures. This study could have accounted for other types of network homogeneity such as gender, age, occupation, sexual orientation, and religion in order to evaluate whether other kinds of demographic homogeneity mattered more than ethnicity in predicting psychological outcomes. The utilized measure of ethnic network homogeneity could have had additional context specificity (for instance, ethnic homogeneity in workplace, neighborhood, school, city, state) for richer accounts of network composition. Facebook users’ tie strength (see Marsden & Campbell, 1980) could have rendered a better account on psychological outcomes as network intimacy can act as key moderator in the relationship.

5. Conclusion
Unlike Seder & Oishi (2009), this study did not support the assumption that ethno-network homogeneity would predict psychological welfare. Study findings instead suggested that simple socio-demographic composition is not enough to assess social capital psychological benefits. The current research still found associations between Facebook network-related characteristics and psychological welfare similar to other studies among Facebook users (Chen & Lee, 2011; Gonzales & Hancock, 2009; Kalpidou, Costin, & Morris, 2011; Kim & Lee, 2011; Mehdizadeh, 2010). Study findings should be approached cautiously when interpreted as the small sample size of Facebook users prevents generalizations to be made and or reduced possible statistical associations to emerge. This study, in spite of its limitations, offers some academic and practical contributions in its observed findings.

Study findings caution academics in not assuming emotional support within network homogeneity, hence the need to include both demographic and expressive measures in studies of socio settings and social capital benefits. On a less scholarly note, this research recommends Facebook users to exercise diligence in their engagement with content from their network to minimize unfavorable self-concept evaluations. Facebook can, however, enable those with narcissistic dispositions an opportunity to glorify their ego. Both findings therefore suggest the double-edge sword of friendship networks. The study’s focus on ethnicity sheds light into its dynamic’s in online settings. Given the lack of statistical correlations, the study suspiciously and carefully calls attention to color-blind ideologies among Facebook users who perhaps internalized a comforting sense of ethno sameness (Gallagher, 2003).
References


