

**Revisiting the powerful-not-lonely effect across cultures: The mediating role of
self-construal and social support**

Wei Cai ^{a,*}, Ana Guinote ^{b,c}, Song Wu ^d

a. School of Humanities and Management/ Research Center for Quality of Life and Applied Psychology / Key Laboratory for Quality of Life and Psychological Assessment and Intervention, Guangdong Medical University, Dongguan, China

b. Experimental Psychology, University College London, London, United Kingdom

c. Instituto Universitário de Lisboa (ISCTE-IUL), CIS-IUL, Lisboa, Portugal

d. School of Psychology, Shenzhen University, Shenzhen, China

Correspondence concerning this article should be addressed to Wei Cai, No.1

Xincheng Blvd, Songshan Lake National High-tech Industrial Development Zone,

Dongguan Guangdong, China, 523808. Email: weicaicc@gmail.com

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weicaicc@gmail.com.

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1 **Revisiting the powerful-not-lonely effect across cultures: The**
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4 **mediating role of self-construal and social support**
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10 Running head: POWER DECREASES LONELINESS ACROSS CULTURES
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Abstract

The prevalence of loneliness has dramatically increased in recent decades, rendering it a significant worldwide risk factor for both physical and mental health. This study examined the relationship between sense of power and loneliness in two cultures. It was hypothesized that high sense of power is associated with reduced loneliness, and that this relationship is mediated by perceived social support and the individual's self-construal (relative independent self-construal for the West and relative interdependent self-construal for the East). Two studies and 476 participants (200 from the U.K. and 276 from the Chinese mainland) completed the Sense of Power Scale, UCLA Loneliness Scale, Multidimensional Scale of Perceived Social Support, and Self-Construal Scale. Results from the multiple mediation analyses supported the hypotheses. It showed that power is negatively related to loneliness across cultures. Also, a high sense of power was related to greater perceived social support and individual's dominant self-construal which decreased loneliness. These findings contribute to the understanding of social power and loneliness from a cross-cultural perspective, shed light on practices in social and personal relationships, provide explanations for loneliness in interpersonal relationships, and provide potential buffers against loneliness that can increase positive emotions and wellbeing in social life.

Keywords: sense of power; loneliness; perceived social support; self-construal

Introduction

Loneliness is a negative subjective feeling accompanied by thoughts of being isolated and disconnected from others (Russell, 1996). Its prevalence has dramatically increased in recent decades, rendering it a significant worldwide risk factor for both physical and mental health, and an indirect cause of morbidity and mortality (Hawkley & Cacioppo, 2010). Despite this, research has only recently started to unravel the influence of social structural factors on the experience of loneliness. Contrary to the belief common to many cultures that *it feels lonely at the top*, power is negatively associated with loneliness in the West (Kuehn et al., 2015; Waytz et al., 2015). In this study, we examine the link between a sense of power and loneliness across cultures. We propose that a sense of power is a universal buffer that protects individuals against loneliness across cultures. However, the mechanisms that link a sense of power to reduced loneliness may depend on individuals and cultures. This occurs because a high sense of power is associated with increased psychological resources, which can foster two indirect routes to reduced loneliness: dominant self-construal and perceived social support. Examining how and why power affects loneliness across cultures is a crucial step to understanding loneliness and coping mechanisms in a world characterized by mobility and cultural adaptation.

Power and Loneliness

Sense of power refers to one's subjective power or the perception of one's capacity to influence others (Anderson et al., 2012). It varies between individuals in consistent ways across contexts, and predicts behavior in a similar manner as having or lacking actual power (e.g., Fast et al., 2012). A sense of power could affect loneliness because it

1 is related to accessibility to valuable resources (see Keltner et al., 2003). The
2
3 availability of these valuable resources increases the dependence of others on the
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5 individual with access to them, and also decreases individuals' desire for connections
6
7 with others (Chen et al., 2017). This increase in dependence and decrease in desire
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9 might bridge the gap between a person's actual and desired interpersonal relationships,
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11 thus decreasing loneliness (Russell, 1996). Further, the availability of valuable
12
13 resources comes with power related to coping methods across cultures (Rokach, 1999),
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15 which in turn might influence an individual's coping strategies for dealing with
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17 loneliness (Masi et al., 2011). Based on this, and consistent with previous research, we
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19 propose that a high sense of power can protect individuals against loneliness across
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21 cultures.
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29 ***Route One: Power, Social Support, and Loneliness***

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32 In a recent study, it was shown that power decreases loneliness by reducing the need to
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34 belong (Waytz et al., 2015). However, this study only focused on motivational
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36 determinants of social experiences and did not consider the increased psychological
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38 resources that individuals with elevated subjective power have at their disposal or how
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40 they operate in different cultural contexts. In the current study, we focus on more
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42 general cognitive mechanisms, while considering the cultural-specific context.
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47 We propose that the first protective route linking a sense of power to reduced
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49 loneliness is related to social support. Abundant perceived social support may decrease
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51 the need to belong (Baumeister & Leary, 1995), which demonstrates that social support
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53 might be the original, general mechanism underlying the power-loneliness link. The
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55 higher an individual's sense of power the more they may perceive availability of social
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1 support from existing and potential relationships, which in turn can directly counteract
2 feelings of isolation (Leary, 1990). This may occur because individuals with a high
3 sense of power tend to be more extroverted, and can potentially access more social
4 connections to draw upon when needed (e.g., Lee & Tiedens, 2001; Winter, 1973). For
5 instance, a sense of power is linked to perceived enhanced support after threats to their
6 status quo and after social exclusion (Narayanan et al., 2013). In a similar vein, high
7 power individuals tend to overestimate the extent to which others like them (Brion &
8 Anderson, 2013), which might increase their perception of social support and benefit
9 their current psychological needs and well-being (see Anderson & Berdahl, 2002).
10 Consistent with these findings, we hypothesize that individuals with a high sense of
11 power overestimate the availability of social support, and that this is beneficial for their
12 well-being as it protects them against the threat of loneliness.
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31 ***Route Two: Power, Dominant Self-Construal, and Loneliness***

32 We propose that the second protective route to decreased loneliness among individuals
33 with a high sense of power is related to the ways that they construe the self, which
34 depends on their culture. At the individual level, independent and interdependent self-
35 construal can coexist (Singelis, 1994). It is the relative strength of independent and
36 interdependent self-construal (i.e. the dominant self-construal), rather than the strength
37 of each self-construal per se, that determines which self-construal drives an individual's
38 current behaviors and cognition (see Lockwood et al., 2002). Dominant self-construal
39 therefore refers to the relative extent to which the self-concept is interdependently or
40 independently related to other people (Markus & Kitayama, 1991; "Self-Construal,"
41 2011). In spite of these differences, most Westerners tend to construal themselves
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1 independently, whereas most Easterners construal themselves interdependently with
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3 others (Hofstede, 1980; Markus & Kitayama, 1991; Singelis, 1994).
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6 Research has shown that individuals whose personal values match the prevalent
7
8 cultural value feel more positive emotions (Fulmer et al., 2010). Accordingly,
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10 individuals whose dominant self-construal is consistent with cultural values should
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12 experience less distress when facing isolation. Crucially, Westerners whose dominant
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14 self-construal is independent, experience less loneliness in the West (Lykes &
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16 Kimmelmeier, 2014), and Easterners whose dominant self-construal is interdependent,
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18 experience less loneliness in the East (Ren et al., 2013).
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23 Past research has also shown that a high sense of power amplifies the expression
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25 of one's dominant goals and predispositions. To attain their goals, such as the
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27 preservation and maintenance of resources, high power individuals more extensively
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29 process cues that are relevant to active goals and strive more to attain these goals
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31 compared to other individuals (Guinote, 2008). Power also magnifies self-expression
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33 (Kraus et al., 2011). For instance, power increases exchange inclinations (desire to
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35 receive one's fair share), or communal inclinations (wanting to benefit others)
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37 depending on the person (Chen, Lee-Chai, & Bargh, 2001; see also Guinote, Weick &
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39 Cai, 2012). Similarly, having power magnifies one's level of morality (DeCelles et al.,
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41 2012). In a similar vein, in this study we propose that power increases the prevalent
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43 predispositions of individuals in Western and Eastern cultures. That is, power could
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45 strengthen individuals' cultural-fit self-construal: high power could enhance the
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47 independent dominant self-construal in the West, and the interdependent dominant self-
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49 construal in the East.
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1 According to research conducted in Western culture, individuals with a high
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3 sense of power are more likely to construe the self as an independent entity. Compared
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5 to powerless individuals, individuals with a higher sense of power may feel more
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7 independent and autonomous (i.e., have an independent self-construal; Hofstede, 1980),
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9 more distant from others (Lammers et al., 2016), and be more reluctant to engage in
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11 self-disclosure (Earle et al., 1983). Furthermore, powerful individuals show less desire
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13 for harmonious interpersonal relationships (e.g., Lee & Tiedens, 2001; Winter, 1973),
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15 and are less reactive to social rejection compared to their powerless counterparts
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17 (Kuehn et al., 2015). This, in turn, is a buffer against rejection and the experience of
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19 loneliness (see Waytz et al., 2015) in Western contexts.
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25 Meanwhile, research conducted in Eastern cultures suggests the opposite route.
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27 Specifically, individuals with a high sense of power in the East are more likely to
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29 construe the self interdependently with others. Compared to the powerless, powerful
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31 individuals in Eastern cultures are more interpersonally sensitive (Zhong et al., 2013)
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33 and have a stronger desire to cooperate with group members (Liu & Zhang, 2017).
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35 Taken together, we propose that power magnifies the dominant self-construal that
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37 prevails in a culture, and that dominant self-construal is one mediator in the relationship
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39 between a high sense of power and a lower incidence of loneliness. Specifically, a high
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41 sense of power should decrease loneliness by increasing the independent dominant self-
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43 construal in the West and the interdependent dominant self-construal in the East. This
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45 hypothesis is consistent with the situated focus theory of power (Guinote, 2007), which
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47 argues that power triggers situated behavior in line with dominant goals, affordances,
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49 and needs of individuals, which vary depending on the context.
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The Present Research

Two independent cross-sectional investigations were conducted in China (Study 1) and the UK (Study 2) to determine the link between a sense of power and loneliness across cultures, and related psychological mechanisms. Consistent with past research, we hypothesized that a high sense of power is negatively related to loneliness (Hypothesis 1). Furthermore, we predicted a dual mediator model of power and loneliness, including a universal mediator and a culture specific mediator. Specifically, greater perceived social support should mediate the relationship between power and loneliness in both cultures (Hypothesis 2). Furthermore, in the West, a high sense of power should be associated with enhanced expression of independent dominant self-construal and this, in turn, should decrease loneliness (Hypothesis 3a). In contrast, in the East, a high sense of power should be associated with enhanced interdependent dominant self-construal, which, in turn, should decrease loneliness (Hypothesis 3b). These hypotheses are based on the greater prevalence of the culture specific (vs. the opposite) construal (Chiu & Hong, 2006; Zou et al., 2009). Dominant self-construal was measured by scores of the independent self-construal subscale minus the interdependent self-construal subscale of the Self-Construal Scale (Huang et al., 2009; Singelis, 1994). The higher the score, the more independent the dominant self-construal; whereas the lower the score, the more interdependent the dominant self-construal.

Study 1: The Eastern Culture

Method

Participants

Two hundred and seventy-six participants from an Eastern culture (i.e., China; 147 female; $M_{\text{age}} = 32.32$ years, $SD = 6.62$, age range: 18-55) were recruited via the sample service provided by a professional survey website (<https://www.wjx.cn/>). All participants were from the Chinese mainland. Regarding total household income, 0.7% of participants earned ¥20,000 or less, 7.2% earned ¥20,001 – 50,000, 15.2% earned ¥50,001 – 100,000, 32.6% earned ¥100,001 – 150,000, 24.6% earned ¥150,001 – 200,000, 14.5% earned ¥200,001 – 300,000, 4.0% earned ¥300,001—500,000, and 1.1% earned over ¥500,000 (¥1 was approximately equal to £0.11 at the time that the study was conducted).

Procedure

All participants signed informed consent forms prior to participation in the study. The study was conducted online and participants completed five scales in turn to measure the following variables: Sense of Power, Loneliness, Social Support, Independent Self-construal, Need to Belong, and demographics variables. Since prior research suggested that motivational determinants of social experiences (Need to Belong; Waytz et al., 2015) might mediate the relationship between power and loneliness, we included the measure of Need to Belong for replication in the Chinese context.

Measures

Sense of Power

Dispositional power was assessed by the Sense of Power Scale (Anderson et al., 2012). The scale consists of 8 items (e.g., “I think I have a great deal of power”, “My wishes do not carry much weight” [reverse]). Respondents were asked to report their beliefs regarding their general sense of power in relationships with others. Cronbach’s $\alpha = .81$ for the current sample.

Loneliness

Loneliness was measured with the UCLA Loneliness Scale (version 3) (Russell, 1996). Respondents rated how they generally feel in 20 items (e.g., “How often do you feel alone?”, “How often do you feel that your relationships with others are not meaningful?”) on a 4-point scale, ranging from 1 (never) to 4 (always). Cronbach’s α was .93 for the sample.

Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988) was used to measure social support. The MSPSS consists of 12 items (e.g., “I can talk about my problems with my family”, “My friends really try to help me”) that estimate perceived social support from three different sources: family, friends, and significant others. All items were rated on 7-point scales (1 = Strongly Disagree, 7 = Strongly Agree). Cronbach’s α of the MSPSS was .93 for the sample.

Dominant Self-construal

The Self-Construal Scale (Huang et al., 2009; Singelis, 1994) was used to assess individuals' self-construal on 7-point scales, varying from "Strongly Disagree" (1) to "Strongly Agree" (7). This scale consists of two subscales: *Interdependent Self-construal* and *Independent Self-construal*. The Interdependent Self-construal subscale includes 12 items and emphasizes connectedness and relations with others (e.g., "I have respect for the authority figures with whom I interact"; Cronbach's $\alpha = .88$ for the Eastern sample). The Independent Self-construal subscale emphasizes the separateness and uniqueness of the individual (e.g., "I act the same way no matter who I am with"), including 10 items for the Eastern sample due to cultural issues (Cronbach's $\alpha = .80$; Huang et al., 2009). We created a measure of *Dominant Self-construal* by taking the scores of the Independent Self-construal subscale minus the scores of the Interdependent Self-construal subscale. Higher scores for Dominant Self-construal reflected a relatively stronger independent than interdependent self-construal, while lower scores reflected a relatively stronger interdependent than independent self-construal.

Need to Belong

The Need to Belong Scale (Leary et al., 2013) was used to assess individuals' desire for acceptance and belonging. There are 10 items, such as "I do not like being alone", and "I want other people to accept me", and the Cronbach's α is .65. Participants needed to indicate their responses to each statement on a 5-point scale, from "Strongly Disagree" (1) to "Strongly Agree" (5).

Data Analysis

First, descriptive statistics and inter-correlation analysis were conducted to check the means, standard deviations, and correlations for all measures. Next, collinearity statistics were used to analyze whether multi-collinearity was an issue. To analyze our dual mediation model of the relationship between power and decreased loneliness, an SPSS macro was used, following the method used by Preacher and Hayes (2008). The model includes analyses of total and specific indirect effects (Hayes, 2009). 95% bias corrected bootstrap confidence intervals for total and specific indirect effects were used, based on 5,000 bootstrap samples as recommended by Preacher and Hayes (2008).

Results

As Table 1 shows, all inter-correlations were significant ($p < .001$) and in the expected directions, in particular, the negative association between sense of power and loneliness. The mean of dominant self-construal was -0.21 , $SD = 0.65$, which indicates that Chinese participants perceive themselves as more interdependent than independent. Collinearity statistics showed that multi-collinearity was not an issue in this study, all tolerance of variables was > 0.1 and < 2 for the variance inflation factor (VIF).

[Insert Table 1 about here]

Figure 1 shows the results of multiple mediation analysis. The total effect of sense of power on loneliness was significant, $c = -.40$, $SE = .024$, $t = -16.39$, $p < .001$, 95% CI $[-.45, -.35]$. After adding the indirect effects of the two mediators, the direct effect of sense of power on loneliness was significantly reduced to $-.23$, $SE = .029$, $t = -8.04$, $p < .001$, 95% CI $[-.29, -.18]$, and the overall model R^2 was $.61$, $F(3,272) = 140.76$, $p < .001$. Specifically, power was significantly negatively related to dominant

1 self-construal ($\beta = -.13, p = .005, 95\% \text{ CI } [-.22, -.04]$), and positively associated with
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 3 loneliness ($\beta = .07, p = .014, 95\% \text{ CI } [.15, .13]$). Sense of power was significantly
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 5 related to greater perceived social support ($\beta = .61, p < .001, 95\% \text{ CI } [.53, .69]$), and
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 7 negatively associated with loneliness ($\beta = -.26, p < .001, 95\% \text{ CI } [-.32, -.20]$).
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 10 Bootstrapping analysis showed that the total standardized indirect effect of power on
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 12 loneliness through the two proposed mediators was $-.30, 95\% \text{ CI } [-.37, -.22]$, the
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 14 specific indirect effects of dominant self-construal ($= -.02, 95\% \text{ CI } [-.04, -.002]$, ratio to
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 16 the total effect was 2%) and perceived social support ($= -.28, 95\% \text{ CI } [-.36, -.21]$, ratio
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 18 to the total effect was 40%) were both significant mediators. The indirect effects of
 19
 20 dominant self-construal ($= -.02, 95\% \text{ CI } [-.05, -.003]$, ratio to the total effect was 3%)
 21
 22 and social support ($= -.27, 95\% \text{ CI } [-.35, -.20]$, ratio to the total effect was 40%) remain
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 24 significant even after considering the effects of gender ($\beta = .04, p = .020$), age ($\beta < .01,$
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 26 $p = .949$), and income levels ($\beta < -.01, p = .593$). These results show that a high sense of
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 28 power decreases loneliness in the East, and via at least two routes: relatively higher
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 30 interdependent self-construal and more perceived social support.
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37 *[Insert Figure 1 Here]*

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 40 In addition, a potential mediator of Need to Belong was tested. The results show
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 42 that power is positively associated with Need to Belong ($\beta = .11, p < .001$), but Need to
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 44 Belong not significantly associated with loneliness ($\beta = -.04, p = .422$). Therefore, the
 45
 46 mediation model of Need to Belong in the relationship of power and loneliness was not
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 48 supported by the data. These results suggest that the motivational mediator (i.e. need to
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 50 belong, Waytz et al., 2015) could not explain why power reduces loneliness in the East,
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 52 but the cognitive variables does explain (i.e. relatively stronger interdependent self-
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 54 construal and social support). Moreover, a competing model was analyzed to test
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1 whether loneliness would decrease sense of power via both social support and dominant
2 self-construal. The overall model R^2 was 0.55, $F(3,272) = 109.90$, $p < .001$. However,
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4 the indirect effect of dominant self-construal ($< -.01$, 95% CI $[-.04, .03]$) was not
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6 significant. These results show that the alternative model was less supported by the data,
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8 and that the original model with sense of power as a predictor, loneliness as a dependent
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10 variable, and the two mediators, was sufficiently supported.
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17 **Study 2: The Western Culture**

18 **Method**

19 *Participants*

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26 Two hundred adults (112 female; mean age = 24.12 years, $SD = 7.25$, age range: 18-60)
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28 were recruited on an unpaid basis during a one-month period from a professional
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30 website dedicated to scientific surveys for and by users
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32 (<http://www.reddit.com/r/SampleSize/>). All participants were native English speakers.
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35 Regarding total household income, 7.5% of participants earned £10,000 or less, 16.5%
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37 earned £10,001 – 20,000, 13.5% earned £20,001 – 30,000, 15.5% earned £30,001 –
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39 45,000, 18.5% earned £45,001 – 70,000, 12.5% earned £70,001 – 95,000, 9.5% earned
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41 £95,001—140,000, and 6.5% earned over £140,000.
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47 *Procedure and Measures*

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50 The procedure and measures of Study 2 were the same as in Study 1, except that the
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52 Need to Belong scale is not used. The Cronbach's α of the scales for the Western
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54 sample were .89 (Sense of Power, Anderson et al., 2012), .94 (UCLA Loneliness Scale,
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56 Russell, 1996), .91 (MSPSS, Zimet et al., 1988), .76 (Independent self-construal, 12
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1 items; Singelis, 1994), and .77 (Interdependent Self-construal, 12 items; Singelis,
 2
 3 1994). The strategies for data analysis were also the same as in Study 1.
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7 **Results**

10 Table 1 shows the means, standard deviations, and inter-correlations for all measures.

13 An independent-sample T test showed that the age of the sample in the West was
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 15 younger than that in the East, $t(474) = 12.81, p < .001, 95\% \text{ CI } [6.94, 9.46]$. Chi-square
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 17 analysis showed that gender in both samples was not significant, $\text{Chi}^2 = .35, p = .554$.

20 After controlling age, the results showed that dominant self-construal in the West was
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 22 significantly biased towards being independent compared to in the East, $F(1, 475) =$
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 24 $7.46, p = .007, \eta^2 = .016$. Collinearity statistics showed that multi-collinearity was not
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 26 an issue in this research, all tolerance of variables was > 0.1 and < 1.6 for VIFs.
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30 Next, Figure 2 shows the results of dual mediator analysis. The total effect of
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 32 sense of power on loneliness was significant, $c = -.33, SE = .034, t = -9.67, p < .001,$
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 34 $95\% \text{ CI } [-.40, -.26]$. After adding the indirect effects of the two mediators, the direct
 35
 36 effect of sense of power on loneliness was significantly reduced to $c' = -.12, SE = .031,$
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 38 $t = -3.81, p < .001, 95\% \text{ CI } [-.18, -.06]$, and the overall model R^2 was .64, $F(3, 196) =$
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 40 $113.97, p < .001$. Specifically, power was significantly positively related to dominant
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 42 self-construal ($\beta = .54, p < .001, 95\% \text{ CI } [.37, .71]$), which was negatively associated
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 44 with loneliness ($\beta = -.04, p = .036, 95\% \text{ CI } [-.08, -.003]$) in turn; and sense of power
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 46 was significantly related to greater perceived social support ($\beta = .63, p < .001, 95\% \text{ CI}$
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 48 $[.48, .78]$), which was negatively associated with loneliness ($\beta = -.30, p < .001, 95\% \text{ CI}$
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 50 $[-.34, -.25]$). Bootstrapping analysis showed that the total indirect effect of power on
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 52 loneliness through the two proposed mediators was $-.36, 95\% \text{ CI } [-.46, -.28]$. Further,
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1 the specific indirect effect of dominant self-construal (= -.04, 95% CI [-.08, -.01], ratio
2 to the total effect was 7%) and perceived social support (= -.32, 95% CI [-.41, -.24],
3 ratio to the total effect was 57%) were also both significant mediators. These results
4 show that high sense of power decreases loneliness in the West, at least via two routes:
5 relatively higher independent self-construal and more perceived social support.
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13 *[Insert Figure 2 about here]*
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15 In addition, a competing model was analyzed to test whether loneliness would
16 decrease sense of power via both social support and dominant self-construal. The
17 overall model R^2 was 0.39, $F(3,196) = 41.55$, $p < .001$. However, the indirect effect of
18 social support (= -.25, 95% CI [-.509, .003]) was not significant. These results show that
19 the alternative model was less supported by the data, and the original model with sense
20 of power as a predictor, loneliness as a dependent variable, and the two mediators, was
21 sufficiently supported.
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33 **Discussion**

34 Contrary to the common belief that powerful individuals are isolated and that it is lonely
35 at the top, the present findings show that power is *negatively* related to loneliness and
36 that this link is universal across cultures. This result is consistent with recent findings
37 (Waytz et al., 2015), extending them across cultures. Importantly, the current results
38 show that the link between a high sense of power and reduced loneliness is mediated by
39 two cognitive mechanisms: greater perceived social support and dominant self-
40 construal. First, a high sense of power was related to greater perceived social support
41 which decreased loneliness across cultures. Second, the higher the sense of power
42 individuals possessed in the West, the more they construed themselves to be an
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1 independent (vs. interdependent) entity; whereas in the East, the higher the individuals'
2 sense of power, the more they construed themselves to be an interdependent (vs.
3 independent) entity; and this in turn also reduced loneliness. These two variables
4 stemming from sense of power can jointly or dynamically result in reduced loneliness.
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10 The dual mediator model of power and loneliness identified here contributes to
11 an understanding of how powerful people navigate the social world. It shows that
12 powerful people have a wider range of psychological resources to counteract loneliness
13 than previously thought. Specifically, an elevated sense of power is related to an
14 increased number of psychological resources that individuals rely upon when dealing
15 with the challenge of loneliness, including both universal and culture specific strategies.
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25 From a broader perspective, the present findings lend support to the notion that
26 power leads to positive affect (i.e. less loneliness) and approach motivation (Anderson
27 & Berdahl, 2002). They are consistent with recent suggestions that power could
28 decrease the need to belong and negative responses to social rejection (Chen et al.,
29 2017; Kuehn et al., 2015; Narayanan et al., 2013). Most people in one culture share
30 their self-construal (Chiu & Hong, 2006), for example, most Westerners construal self
31 as independent and most Easterners construal self as interdependent. The findings here
32 show that sense of power increases individuals' dominant self-construal, which fits the
33 cultural values and is associated with subjective well-being (Fulmer et al., 2010).
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47 Crucially, the findings suggest that this positive outlook can derive from self-construal
48 and perceived social support. The current research used a cross-culture view to examine
49 how power affects our cognition and behavior. It enriches the existing literature and
50 sheds lights on both power and culture research.
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1 The present findings showing culture specific links between sense of power and
2 self-construal are in line with the situated focus theory of power (Guinote, 2007, 2010).
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4 They show that power increases flexibility in cognition and behavior according to
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6 power holders' situational values, goals, and needs (Guinote, 2015). They may flexibly
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8 adapt the dominant cultural construal of the self, which varies across different cultures.
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11 On the one hand, in the West - where the culture values independence - they may
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13 distance themselves from others or seek (or perceive) social support when in need, in
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15 order to down-regulate negative affect created by loneliness. On the other hand, in the
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17 East - where the culture values connections - powerfulness may connect them with
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19 others and they may seek (or perceive) greater social support when in need to protect
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21 themselves against loneliness, maintaining a healthy and positive mood.
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27 Furthermore, apart from these unique and important contributions to theory
28 development and the understanding of the links between power and loneliness, this
29 study extends and can be distinguished from the study of Waytz, Chou, Magee, and
30 Galinsky (2015) in several ways. First, our research investigated whether and why
31 power reduces loneliness across cultures. It identified both general mechanisms, linked
32 to social support, and also cultural-specific mechanisms linked to the dominant self-
33
34 construal to explain the link between power and loneliness. Second, the mechanism
35 proposed by Waytz, Chou, Magee, and Galinsky (2015) is inherently motivational,
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37 whereas our proposed mechanisms are both cognitive in nature. We believe social
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39 support may precede the need to belong since the perception of greater social support
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41 should decrease the desire to seek belonging (Baumeister & Leary, 1995). Importantly,
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43 our model raises the possibility that people in power can resort to alternative means
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45 appropriate to their culture to buffer against loneliness when in need.
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1 Given the nature of the study described here, there are some limitations that are
2
3 worth noting. One of the limitations is that the current study did not distinguish between
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5 illusory or real perceived social support. Given past findings that power holders tend to
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7 overestimate their alliances with others (Brion & Anderson, 2013), we suspect that the
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9 perceived social support is more illusory than real. Furthermore, the present findings are
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11 preliminary and more studies are necessary to establish the boundary conditions of the
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13 findings, for instance, to consider separately the roles of culture and individual
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15 inclinations. Third, this study is cross-sectional and more lab studies and/or multi-wave,
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17 cross-lagged studies are needed in the future to test the causal ordering of our model and
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19 expand our understanding of the relationship between power, culture and loneliness.
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25 Despite these limitations, the present findings provide novel evidence in the
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27 domains of power and loneliness, with important practical implications and potential
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29 strategies to contribute to the wellbeing of individuals in today's society. They shed
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31 light on practices in social and personal relationships, not only providing explanations
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33 for loneliness in interpersonal relationships, but also affording potential buffers against
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35 loneliness that can increase positive emotions and wellbeing in social life.
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41 **Declarations**

42 **Consent to participate**

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44 Informed consent was obtained from all individual participants included in the study.
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49 **Consent for publication**

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51 The participant has consented for publication of their data.
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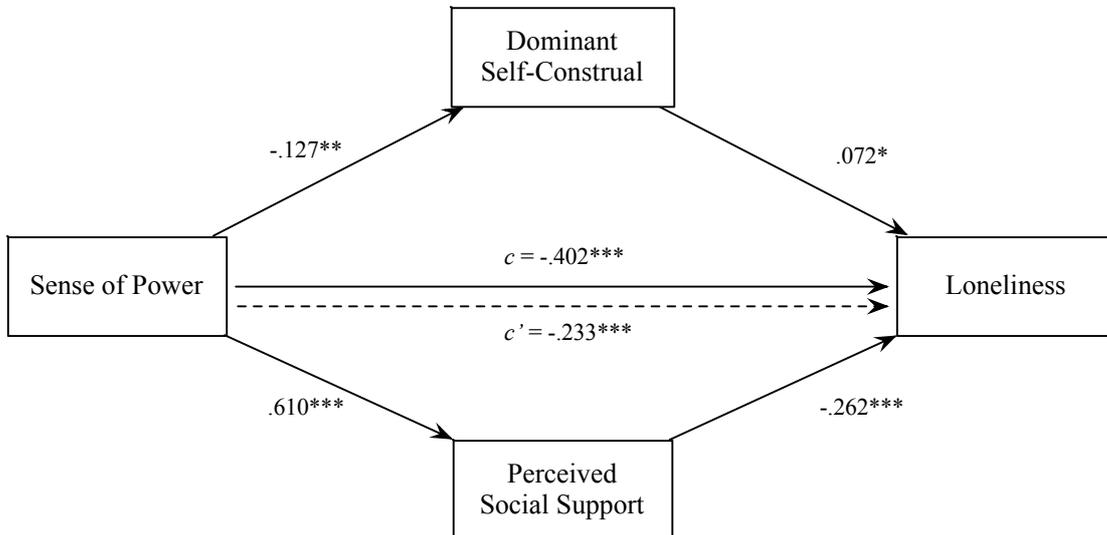
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Table 1. Means, Standard deviations and Correlations between all variables

	<i>Mean</i>	<i>SD</i>	1	2	3	5
Study1: The East (n = 276)						
1. Sense of Power	4.78	0.87	1			
2. Loneliness	1.99	0.50	-.70 ^{***}	1		
3. Social Support	5.59	0.80	.66 ^{***}	-.71 ^{***}	1	
4. Dominant Self-construal	-0.21	0.65	-.17 ^{**}	.23 ^{***}	-.15 [*]	-.34 ^{***}
5. Need for belong	3.42	0.43	.21 ^{***}	-.18 ^{**}	.30 ^{***}	1
Study 2: The West (n = 200)						
1. Sense of Power	4.97	0.98	1			
2. Loneliness	2.38	0.57	-.57 ^{***}	1		
3. Social Support	5.13	1.22	.51 ^{***}	-.76 ^{***}	1	
4. Dominant Self-construal	-0.09	1.31	.40 ^{***}	-.33 ^{***}	.23 ^{***}	--

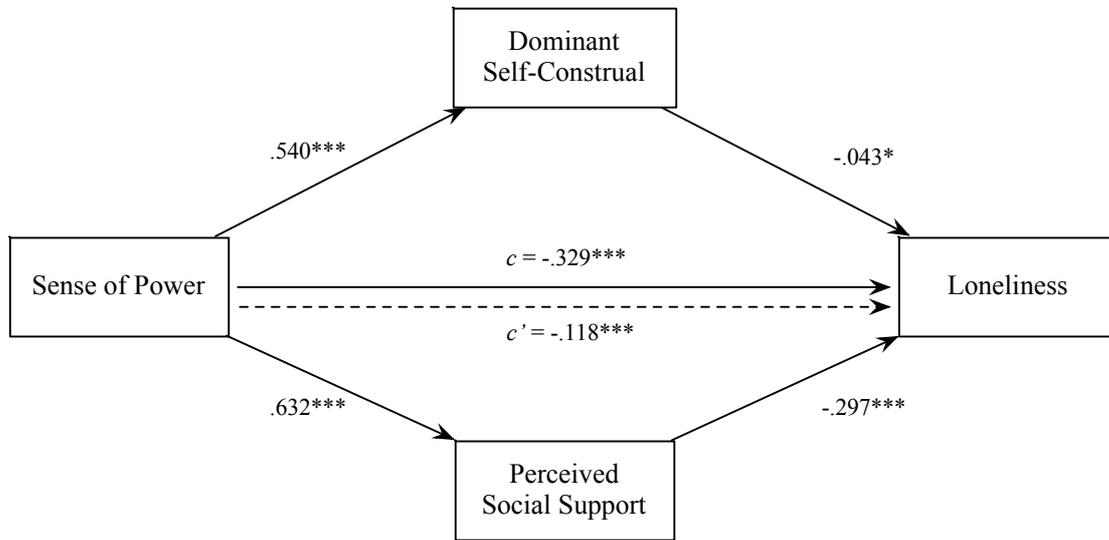
Note: *** = $p < .001$, ** = $p < .01$, * = $p < .05$

1 Figure 1. A dual mediation model of the association between power and loneliness via
 2 self-construal as a suppressor and perceived social support as a mediator in the Eastern
 3 sample (n = 276)
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27 Note: *** = $p < .001$, ** = $p < .01$, * = $p < .05$; Dominant self-construal = independent
 28 self-construal minus interdependent self-construal.
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Figure 2. A dual mediation model of the association between power and loneliness via self-construal and perceived social support in the Western sample (n = 200)



Note: $^{***} = p < .001$, $^* = p < .05$; dominant self-construal = independent self-construal minus interdependent self-construal.