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Autonomy Support for Conflictual and Stigmatized Identities: Effects on Ownership and
Psychological Health

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Abstract

Important others' perceptions influence self-perceptions. This presents a challenge for the critical developmental task of integrating all aspects of identity, as identities that are devalued or stigmatized by society are harder to own than valued ones. Across three studies, we tested the idea that conflictual or stigmatized identities are harder to own, or integrate into the self, than are non-conflictual ones, and we examine how receiving autonomy support for an identity – support for authentic identity exploration and expression – can facilitate ownership of that identity. Cross-sectional ($n = 543$), experience-sampling ($n = 66$), and experimental methods ($n = 209$) tested the dynamics of autonomy-supportive others on identity ownership. Data from three studies converge to show that conflictual identities are indeed harder to own than non-conflictual ones, but that autonomy support predicts greater ownership and psychological health, especially for conflictual identities. In the final study, we replicate these dynamics in three identities stigmatized by society: sexual minority, ethnic minority, and gender minority identities. Findings reveal the importance of integrating all aspects of identity – particularly those that are conflictual or stigmatized – into one's self-concept. We consider implications for counseling and clinical practice, as well as broadly for the psychological health of stigmatized individuals.

Keywords: *self-determination theory; autonomy support; stigma; psychological health; identity*

Public health significance: Findings reveal that perceiving important others as autonomy supportive of one's identity – particularly when that identity is conflictual or stigmatized – facilitates ownership of that identity and greater psychological health. This work highlights the psychological benefits of accepting and supportive family members, friends, coworkers and others, and speaks to the utility of counselors and clinicians providing autonomy support to clients grappling with a conflictual or stigmatized identity.

Autonomy Support for Conflictual and Stigmatized Identities: Effects on Ownership and Psychological Health

One of the most critical developmental tasks is the integration of various identities into a coherent self (Freud, 1923; Erikson, 1959; Jung, 1959; Rogers, 1963). This task can be formidable, as, for various reasons, some identities are harder to integrate than others. Herein we focus on how others' reactions to an identity influence the way in which individuals experience that identity. Consider for example an individual who is obese, living with bipolar disorder, or is gay. These identities may be stigmatized (i.e., devalued by society), but others in his or her life may accept or support that identity to a greater or lesser extent, affecting his or her ability to own that identity.

In this article, we test the idea that perceiving autonomy support for identity is a key determinant of facilitating ownership of identity – that is, the extent to which an individual can accept and integrate that identity into his or her self-concept – as well as his or her psychological health. Informed by the theoretical framework of self-determination theory (SDT; R. Ryan & Deci, 2000), we argue that individuals benefit from being supported in their autonomy, when important others encourage their self-expression, take their perspective, and facilitate a sense of choice (La Guardia & Ryan, 2007; Lynch, La Guardia, & Ryan, 2009). This experience is distinct from other types of support, such as social support defined broadly as having people in one's life who provide psychological and material resources (e.g., Cohen & Willis, 1985), and from another need within SDT, relatedness (R. Ryan & Deci, 2000), defined as having close, caring connections with others, in that support for autonomy specifically conveys acceptance for individuals as they are. Whereas sufficient empirical attention has been drawn to positive outcomes of perceiving autonomy support, in this article we explore the possibility that autonomy support for particular personal identities fosters ownership of those identities and psychological health. We also explore the implications for conflictual identities, which are experienced with tension or shame. We anticipate that autonomy support for conflictual identities will be even more beneficial, because these identities are often the most difficult to integrate into the self-concept.

Ownership of Identity

A challenge that individuals face across the lifespan is acknowledging crucial identities and integrating them into a coherent sense of self. Prominent theorists converge on the idea that healthy development involves assimilating and integrating different identities and, through that process, forming a coherent sense of self (Freud, 1923; Erikson, 1959; Jung, 1959; Rogers, 1963), a process which – experientially – results in greater identity ownership. Ownership is vital for self-esteem and belongingness (i.e., social identity theory; Tajfel & Turner, 1979), self-efficacy (i.e., identity theory; McCall & Simmons, 1978; Stryker 1980), as well as for self-regulation and psychological health (i.e., SDT; R. Ryan & Deci, 2000). Taken together, these literatures emphasize the relevance of identity processes for psychological health, and highlight variability in individuals' abilities to own identities.

This variability exists in part because some identities are easier to own as part of oneself than are others. Identities that are widely celebrated by society – such as being a firefighter or an athlete – may engender pride and often present little conflict. Alternatively, some identities are stigmatized, and often come with interpersonal costs. For example, lesbian, gay, and bisexual (LGB) individuals often face harassment and rejection from others (Amnesty International, 2015; Herek, 2009; Human Rights Campaign, 2010), and are vulnerable to internalizing society's negative view of them (also referred to as self-stigma).

LGB individuals are not alone in facing unfavorable judgments from others based on an identity, nor are they the only stigmatized group vulnerable to self-stigma. Those who are a racial, ethnic, or religious minority, are overweight, or have a mental or physically disabling condition often face social consequences such as prejudice and discrimination, and, as a result, can have difficulty owning that aspect of themselves (Charmaz, 1995; Grossman, Wirt, & Davids, 1985; King, Shultz, Steel, Kilpin, & Cathers, 1993; Rosenberg, 1962; St. Louis & Liam, 2005; Valdez, 2000). Beyond identities stigmatized at a broad societal level, parts of one's identity may be difficult to own for other reasons. For example, an artist may struggle with this identity when encountering a lack of acceptance or support from his family, who would like him to be a biologist. As such, certain identities may come into greater conflict with other identities, values, or feelings, impeding integration into one's self-concept.

As these examples of stigmatized and otherwise conflictual identities illustrate,

identities are rooted in social experiences and are shaped by others in one's past and present (Mead, 1934; Rogers, 1963; Winnicott, 1965). We set out to test this notion empirically by examining how autonomy support for an identity influences the ability to own that identity.

Autonomy Support and Ownership

According to SDT, individuals have a need for autonomy, that is, a need to express important aspects of their experience and to behave in accord with their values and experiences (R. Ryan, 1993; R. Ryan & La Guardia, 2000). Others can support this need to a greater or lesser degree (La Guardia & Ryan, 2007; Lynch & Ryan, 2004). To the extent that individuals are supported in their need for autonomy, they experience more ownership, a sense of connection with their thoughts, feelings, values, and experiences (Lynch et al., 2009; R. Ryan & Deci, 2004; Weinstein, Przybylski, & Ryan, 2012).

Related to the current article, individuals who function autonomously are better able to own conflictual aspects of themselves and their experiences. For example, Weinstein, Deci, and Ryan (2011) found that autonomously individuals owned characteristics and experiences from their past; autonomous individuals endorsed both negative (e.g., shameful) and positive (e.g., easily accepted) characteristics and experiences, whereas less autonomous individuals only endorsed positive ones. Similarly, Weinstein and colleagues (2012) found that perceiving parents as autonomy supportive during childhood linked to more congruence between implicit and explicit reports of sexual identity, suggesting this support predicted greater integration around sexual identity. Together, this work suggests the importance of autonomy and autonomy support for the integration of experiences and identity.

Autonomy Support, Ownership, and Psychological Health

Additional work suggests that being surrounded by autonomy-supportive others fosters psychological health (Deci et al., 2001; Kasser & Ryan, 1999) in both individualistic and collectivist cultures (e.g., Chen et al., 2015; Chirkov & Ryan, 2001). Moreover, receiving autonomy support in close relationships, such as those with parents, friends, and romantic partners, is linked to well-being through its effects on autonomy need satisfaction (Adie, Duda, & Ntoumantis, 2012; Kins, Beyers, Soenens & Vansteenkiste, 2009).

Autonomy support from others also influences psychological health in stigmatized populations. For example, autonomy support is a predictor of coming out about one's lesbian, gay, or bisexual identity (W. Ryan, Legate, & Weinstein, 2015), thus fostering a key stage in identity development (Coleman, 1982). Further, coming out is only linked to psychological health when it occurs in the context of an autonomy-supportive person, and has no relation to psychological health in the absence of autonomy support (Legate, Weinstein, & Ryan, 2012). Implicit in this finding is the idea that autonomy support makes it safer to explore aspects of oneself, including those that may be socially devalued. Indeed, examining this idea more directly, W. Ryan, Legate, Weinstein and Rahman (in press) found that autonomy-supportive social environments were especially linked to wellness outcomes like lower anxiety, depression and higher self-esteem among lesbian, gay, and bisexual individuals higher in self-stigma. The current research aims to understand more about these dynamics with diverse identities, positing that autonomy support is especially important to wellness in stigmatized groups because it enhances ownership of identities that are not always accepted by others.

Theory and research highlight the implications of ownership on psychological health (Rogers, 1963; Weinstein et al., 2011), and a related body of work shows that those who own a minority identity report greater psychological health (Ghavami, Fingerhut, Peplau, Grant, & Wittig, 2011). This effect has been observed with an ethnic minority identity (e.g., Arbona, Jackson, McCoy, & Blakely, 1999; Arroyo & Zigler, 1995; Crocker, Luhtanen, Blaine, & Broadnax, 1994; James, Kim, & Armijo, 2000; Phinney & Alipuria, 1990) as well as a sexual minority identity (Fingerhut, Peplau, & Ghavami, 2005; Reyst, 2001).

This benefit may buffer the costs of self-stigma, which consistently links to worse psychological health (Corrigan et al., 2006; Hatzenbuehler, 2009; Meyer, 2003). For example, overweight individuals who self-stigmatize report lower self-esteem, have greater levels of depression and anxiety, and seek less social support than those who are overweight but do not self-stigmatize (Durso & Latner, 2008). Similar negative outcomes result from self-stigma among members of other devalued groups, such as gay, lesbian, and bisexual individuals who show more depression, anxiety, alcohol, and substance use disorders, and are at greater risk for suicidality (Balsam & Mohr, 2007; Iguarta, Gill & Montoro, 2003;

Newcomb & Mustanski, 2011; Williamson, 2000). Because autonomy support for an identity conveys acceptance for that identity (R. Ryan & Deci, 2000), it is likely particularly important for identities that are stigmatized or otherwise conflictual.

Overview

Given that certain identities may be more difficult to own, we tested whether autonomy support for an identity provided in particular social contexts would link to people's ability to own those identities. We compared relatively non-conflictual identities with conflictual ones with the expectation that autonomy support would be more impactful in the latter case. We also expected that ownership would account for why autonomy support for identity related to psychological health, and particularly for conflictual identities. We explored these processes in diverse identities, including stigmatized ones (LGB individuals, women in Saudi Arabia, Latino/Latina individuals living in the US), and in self-selected conflictual identities. This research was thus conducted in several countries (namely, U.S., U.K., and Saudi Arabia), and indeed theorizing and empirical findings in SDT lead us to believe that the influence of autonomy support on personal experiences is largely universal, or comparable across cultures (Chen et al., 2015; Chirkov & Ryan, 2001; Chirkov et al., 2003; R. Ryan & Deci, 2017).

Our research advances the literature in several ways. First, it tests the relation of social support for specific identities and ownership of those identities. Though there is a great deal of theoretical writing on this topic, no work, to our knowledge, has tested this relation empirically. Second, our research examines the link between social environment and varied identities in an effort to understand common processes. The relevant literature typically focuses on one specific identity (e.g., ethnic identity). Although we recognize the value of examining identities independently, we also see unique utility in exploring social/contextual influences on identities in general. Similarly, we do not wish to equate identities that are stigmatized by society and those that are conflictual for other reasons. To do so would diminish the grave costs of holding an identity broadly stigmatized in society (e.g., Seelman, 2016). Instead, we wish to understand the shared dynamics of identity ownership, and understand ways that social environments can support people in any of their identities.

Finally, our research implements a multi-method approach to studying the influence of important others on identity ownership, including cross-sectional, experience-sampling, and experimental designs. By doing so, we explore relations with autonomy support for one's identity at the relationship-specific, daily, and contextual levels.

We propose and test four primary hypotheses:

- H1: Autonomy support for an identity will link to ownership of that identity.
- H2: The link between autonomy support for identity and ownership will be more robust when identities are conflictual rather than non-conflictual.
- H3: Perceiving autonomy support for one's identity will relate to enhanced psychological health, an effect that will be stronger for conflictual identities.
- H4: Greater ownership will indirectly link the autonomy support X identity conflict interaction (H3) and psychological health.

STUDY 1

Study 1 attempted to capture experiences of receiving autonomy support for identity as they occur using experience-sampling methodology (Reis & Gable, 2000), which is less subject to bias from retrospective reporting. We examined how fluctuations in daily autonomy support for both conflictual and non-conflictual identities relate to corresponding fluctuations in identity ownership, to test H1 that autonomy support for identity would link to ownership of identities (main effect), and H2 that autonomy support for identity would be especially helpful in enhancing ownership of conflictual identities (a moderation effect).

Method

Participants and Procedure

Participants were 66 students (61 women; 5 men) aged between 18 and 36 years ($M = 19.89$ years, $SD = 3.74$), who attended the University of Essex, located in the east of England. We aimed for 80 participants or as many as we could test by the end of the term, up to 80; the observed power achieved in this sample assuming an average effect size of $r = .32$ for our variables of interest was .98. The majority of participants ($n = 46$) were British; the remaining were from other European countries, with one individual from China and another from Malaysia. Participants were recruited using an electronic platform administered by the

department of Psychology, and signed up for a study titled “your daily experiences”. They were compensated with course credit in exchange for taking part. We obtained University Human Subjects approval before the start of data collection.

Participants completed an initial laboratory survey, where they reported on both a conflictual and non-conflictual identity (within-subjects design, counterbalanced order) with the instruction: “Please name or describe one of your most important identities.” In the conflictual identity condition participants were further instructed: “Think of your most *difficult or conflictual* identity. This is the one that you may experience the most tension around.” In the non-conflictual identity condition participants were instead instructed: “...Think of a *non-conflictual or comfortable* identity. This is one which might cause you very little discomfort or unease.”¹ Next, participants reported on their ownership of those identities, as well as how conflictual they were (see more below).

Participants then completed surveys over the course of five evenings, in which they referred back to the identities selected at the start of the study. To help participants think of the same identity, they (1) were instructed to list a keyword that facilitated remembering of their identity, and (2) received instructions referring them to that identity. Each evening, participants reported on their perceived autonomy support for both identities during that day, and their ownership of each identity. Scales and items within scales were presented in random order. Fifty-one participants completed all five days, 5 completed four, 3 completed 3 days, 6 completed two days, and 2 completed one day. There were no correlations between days completed and autonomy support, ownership, or level of identity conflict, $ps > .05$.

Measures

Initial and daily autonomy support for identity. Three items measured autonomy support for identity, which were adapted from the Learning Climate Questionnaire (Black &

¹ Participants noted the identity they selected, and these included: student (30% conflictual, 14% non-conflictual), family (20% conflictual, 44% non-conflictual), friend (0% conflictual, 20% non-conflictual), religion (14% conflictual, 1.5% non-conflictual), and race (7% conflictual; 1.5% non-conflictual), along with additional identities that were endorsed by fewer participants. To ensure all participants were reporting on plausible identities (e.g., were fully engaged in the study), a research assistant unaware of hypotheses but familiar with the task reviewed the identities listed. To this end, the research assistant was instructed to look for key terms that were related to identity, defined loosely for this purpose as ways that we might see or experience ourselves. The assistant judged all of them as appropriate.

Deci, 2000) to assess support for identity, specifically. The original 15-item scale assessing autonomy support has a high internal reliability of .94 (Black & Deci, 2000), and has been used to evaluate experiences of parents (White, Duda, & Hart, 1992), employees in organizational contexts (Mikkelsen, & Grønhaug, 1999), and sports (i.e., with respect to autonomy support from coaches; Newton, Duda, & Yin, 2000), among other applications in the U.K., and the U.S. (Cunningham & Iles, 2002; Mikkelsen, & Grønhaug, 1999). In these studies it relates well to measures of autonomous forms of regulation and to well-being. We extracted only three items to reduce participant burden, but chose items that tapped into core experiences of experiencing autonomy support for one's identity; namely, perspective taking, support for authentic self-expression, and support for self-exploration (Ryan & Deci, 2000; Ryan & Deci, 2017; Weinstein et al., 2011). We also added wording to refer to one's identity, specifically. Participants reported daily on their perceived autonomy support for their two selected identities. For each type of identity, participants reflected on interactions that day: "today, others tried to understand my perspective about my selected identity," "today, others listened to my thoughts and ideas about my selected identity," and "today, others encouraged me to express my true emotions about my selected identity" (1 = *not at all*, 7 = *very much*). Internal reliabilities were acceptable for both initial ($\alpha = .87$ for non-conflictual, $\alpha = .86$ for conflictual) and daily ($\alpha = .87$ for non-conflictual, $\alpha = .86$ for conflictual) identities. Higher scores reflected perceiving more autonomy support for identity.

Initial and daily identity ownership. Five items were adapted from the Intrinsic Motivation Inventory (Deci, Eghrari, Patrick, & Leone, 1994). The original seven-item scale has been used to measure interpersonal closeness, for example in education (Jang & Chen, 2010) and sports (Vlachopoulos & Michailidou, 2006) settings, and in the U.S. (R. Ryan, Rigby, & Przybylski, 2006), and the U.K. (Standage, Duda, & Ntoumanis, 2005). Yet working from this measure we developed a new version for the purposes of assessing this previously unexamined construct, with wording focusing on identity acceptance and closeness. Items were: "I feel in touch with my selected identity," "I highly identify with my selected identity," "I feel close and connected to my selected identity," "I can openly embrace my selected identity," and "I can honestly accept my selected identity" (1 = *not at*

all true, 7 = *very true*; $\alpha = .93$ for both non-conflictual and conflictual identities).

Initial identity conflict. Three items were adapted from the experiences of shame scale (Andrews, Qian, & Valentine, 2002): “How much shame do you experience around this identity?”, “How much stress or tension do you experience around this identity?”, “How proud are you of this identity?” (reverse-scored). The full scale includes 25 items, which include repeated questions at different domains (scale reliability = .94), but none of the original domains consisted of identity. Here, we employed the experiential component of the original scale and supplemented with a positively valenced question assessing identity pride, based on theoretical approaches to studying stigmatized populations (e.g., Cass, 1984). Participants reported on their identity conflict for both types of identities (1 = *not at all*, 7 = *very much*; $\alpha = .66$ for conflictual, and .60 for non-conflictual identities). In previous research, individuals who show more conflict on this measure experience depression (Kim, Thibodeau, & Jorgensen, 2011) and other indicators of poor mental health (Pinto-Gouveia & Matos, 2011) in the U.K. (Swan & Andrews, 2003) as well as the U.S. New to this study, however, the measure we used referenced conflict about one’s identity specifically, rather than feelings of conflict more broadly, with higher scores reflecting more identity conflict.

Results

Preliminary Analyses

Correlational analyses are presented for major study variables in Table 1. A paired-samples *t*-test compared conflictual to non-conflictual identities (our independent variable here) in predicting perceived identity conflict (measured at the start of the study; an outcome and our manipulation check for the study). As expected, conflictual identities ($M = 3.66$, $SD = 1.33$) showed more self-reported conflict relative to non-conflictual ones ($M = 3.01$, $SD = 0.61$), $t(65) = 3.52$, $p = .001$. In addition, conflictual identities ($M = 5.10$, $SD = 1.56$) showed lower ownership at the start relative to non-conflictual ones ($M = 6.20$, $SD = 0.98$), $t(65) = -4.88$, $p < .001$, supporting our expectation that these identities were more difficult for people to own.

Correlational analyses of daily constructs across day also showed that daily levels of autonomy support for identity related to more ownership of that identity, on that day, for both conflictual, $r(298) = .44, p < .001$, and non-conflictual, $r(298) = .21, p < .001$, identities.

Primary Analysis: Effects on Ownership

We analyzed the data with hierarchical linear modeling (Bryk & Raudenbush, 1992; Raudenbush & Bryk, 2002) given the nested nature of the diary responses; that is, identities nested within days, which were in turn nested within participants. This method recognizes the interdependence of experiences within a day, day-level reports collected from the same participant, as well as variation between participants. All participants were included in analyses regardless of the number of completed days. Indeed, HLM is better equipped to handle missing or unbalanced data from some participants having completed more days than others than ordinary least squares (OLS) regression analyses (Little & Rubin, 1987). Please see online supplementary materials for the full description of these models.

Effect sizes and confidence intervals for these hypothesized relations for this and all future studies are summarized in Table 2. Findings (summarized in Table 3) showed initial ownership of the conflictual identity (at Level 3) linked to more daily ownership, $b = .39, t(63) = 6.47, p < .001$, as did ownership of the non-conflictual identity, $b = .27, t(63) = 2.79, p = .007$. Accounting for this, at Level-1 conflictual identities were less owned as compared to non-conflictual ones, $b = -.93, t(567) = -7.68, p < .001$, and experiencing more autonomy support related to greater ownership, $b = .44, t(567) = 6.39, p < .001$. Further, identity type significantly interacted with autonomy support, $b = .30, t(566) = 3.59, p < .001$ (Figure 1). We conducted simple slopes predicting ownership of the two identity types in two separate two-level models. In each model, we predicted ownership from autonomy support of both identity types, and controlled at Level-3 for initial ownership corresponding with each identity type. We obtained an effect of autonomy support on ownership for non-conflictual identities, $b = .28, t = 3.85, p < .001$, and a stronger effect for more conflictual identities, $b = .32, t = 5.46, p < .001$. Autonomy support did not relate to ownership in the case of unmatched identities (i.e., receiving support for a conflictual identity did not predict more ownership of the non-conflictual identity), $b = -.02, t = -0.24, p = .81$, and $b = .01, t = 0.15, p$

= .88. Initial ownership did not relate to daily ownership for non-conflictual identities, $b = .26$, $t = 1.33$, $p = .19$, although it did for conflictual identities, $b = .75$, $t = 6.50$, $p < .001$.

Discussion

Study 1 findings suggested that autonomy support for one's identity is linked to ownership of that identity, consistent with H1 and previous theorizing that supportive others are crucial in promoting identity integration (Rogers, 1963; R. Ryan & Deci, 2000). Findings revealed that the effect of autonomy support is particularly strong when identities were perceived to be conflictual, in line with H2. Interestingly, though not central to our hypotheses, we also found that initial ownership of non-conflictual identities was not related to daily ownership of those identities, but was for conflictual ones. It may be that individuals experience greater fluctuation in owning their conflictual identities as a function of daily influences (salience of identity, interaction with outgroup members, etc.), and it appears that autonomy support remains a better predictor of these fluctuations in conflictual identities versus non-conflictual ones.

STUDY 2

Study 1 demonstrated that autonomy support was related to identity ownership, especially when identities were conflictual. However, the correlational design leaves open the possibility of alternative explanations. For example, individuals who have greater ownership of a particular identity may be more likely to perceive support from others because they feel positively about that identity. In Study 2, we sought to examine a causal model predicting ownership to test H1 (that autonomy support will facilitate ownership) and H2 (that this effect will be more robust for conflictual over non-conflictual identities). We also tested effects on psychological health (H3: autonomy support will benefit psychological health, especially for conflictual identities). To this end, we used an experimental paradigm to manipulate both identity conflict and salience of autonomy support for identity.

Method

Participants, Design, and Procedure

Participants were 209 adults (140 women, 69 men) who completed the study online. There were no missing data in this study and no participants were excluded from analyses. In

anticipation of the 2 X 2 multicell design, recruitment was based on a power analysis anticipating a conservative effect size of .25 (smaller than the previous study to account for the experimental nature), and aiming for power of .95. Ages ranged from 18 to 65 years ($M = 38.33$ years, $SD = 12.57$). Participants were largely U.S. nationals (93.4%), though participants also identified as Filipino, Indian, or Russian, among other nationalities. They were mostly White (73%). Of other ethnicities, 11.1% identified as African American, 9.2 as Asian American, and 1.5 as Latino/a American. Remaining individuals identified as another ethnicity. Participants were recruited through Amazon's Mechanical Turk (Paolacci, Chandler, & Ipeirotis, 2010), and signed up for a study titled "All about you". They were given a small monetary incentive. As in Study 1, we obtained University Human Subjects approval before the start of data collection.

We used a 2 (identity difficulty: non-conflictual, conflictual) X 2 (autonomy support: high, low) between-subjects design. Participants completed an initial survey and selected an identity. Depending on assignment to condition, participants were randomly assigned to select a conflictual identity or to select a non-conflictual identity developed for this study. If assigned to reflect on a conflictual identity, participants received the instructions: *Your identity is a way that you see or define yourself, and which is an important part of how you see yourself (e.g., role in relationships [for example, father, son], religion, career, ethnicity, nationality, appearance etc.). Think of your MOST DIFFICULT OR CHALLENGING IDENTITY, one that you cannot easily change about yourself. This is the one that you may experience the most tension around. Please write down a short description of this identity.*

For the non-conflictual identity, instructions were: "Think of a comfortable identity, but one that you cannot easily change about yourself. This is the one that you may experience very little tension about." Next, participants reported on perceived conflict of their identity (described in Study 1; $\alpha = .68$) as a check for the identity conflict manipulation. They also reported on ownership of their selected identity (as in Study 1; $\alpha = .92$) and state levels of psychological health, which served as baseline assessments of these constructs.

Depending on a second assignment to condition, participants then thought of an important time in which they perceived autonomy support around their identity or did not

perceive autonomy support. Based on assignment to condition, they received the instructions: *For the next 5 minutes, please reflect back to a memorable experience with someone important to you, in which you felt extremely [SUPPORTED / UNSUPPORTED]. This may have been a time in which the important person [TOOK YOUR PERSPECTIVE / FAILED TO UNDERSTAND YOUR PERSPECTIVE] or [ENCOURAGED you to be WHO YOU REALLY ARE / PRESSURED YOU] in a meaningful way around your identity. You may have felt like you really had [A VOICE / NO VOICE] to express your identity. Please think about this carefully; we will ask a few questions about your experience of this identity.* Next, participants reported once again on state levels of identity ownership ($\alpha = .92$) and psychological health, as well as on autonomy support for identity ($\alpha = .89$), with the latter used as a manipulation check.

Materials

We measured psychological health with ten items taken from validated scales and selected by Legate et al. (2012; see also W. Ryan et al., 2015). Four items, taken from the CES-D (Radloff, 1977), were relevant to depression (e.g., “When I am with my [family] I feel sad,”). Three items, taken from the Rosenberg Self-Esteem Scale (Rosenberg, 1965), were relevant to self-esteem (e.g., “When I am with my [family] I feel that I am a very important and significant person”). The final three items, taken from the State Trait Anxiety Inventory (STAI; Spielberger, 1966), were relevant to anxiety (e.g., “When I am with my [family] I feel nervous and uptight”). These widely used scales have been tested with samples in many societies (e.g., Fischer & Boer, 2011; Ghubash et al., 2000; D. Schmitt & Allik, 2005). In previous work looking at psychological health outcomes of autonomy support with British and American participants, individuals who were autonomy-supported, in general, scored highly on this composite measure (Legate et al., 2012; W. Ryan et al., 2015). The psychological health scale has shown acceptable internal consistency ranging from $\alpha s = .63$ to $.94$ previously (Legate et al., 2012), and in our current study ($\alpha s = .85$ and $.94$ for time 1 and 2, respectively). Higher scores refer to more psychological health, after we negatively scored items referring to ill-being.

Results

Manipulation checks. To evaluate the effectiveness of the manipulations, condition was used as a predictor in a model with self-reported conflict as the outcome, and then with self-reported autonomy support as the outcome. Findings presented in full in the supplemental materials showed the identity conflict manipulation predicted more perceived conflict than the low conflict comparison, and the autonomy support manipulation predicted more self-reported autonomy support than the low support comparison.

Ownership

Correlations of ownership, condition, and psychological health are presented in Table 1. To test our primary hypotheses, we regressed identity ownership at Time 2 onto the autonomy support conditions, identity conflict manipulation (both at Step 1), and their interaction at Step 2, and controlling for baseline levels of ownership measured at Time 1 (after the identity manipulation but before the autonomy support manipulation). We obtained a main effect of the autonomy support manipulation, $\beta = .09$, $SE = .12$, $t(205) = 2.23$, $p = .03$ (but no main effect for the identity conflict manipulation, $\beta = -.01$, $SE = .13$, $t(205) = -0.14$, $p = .89$). As may be expected, those who reported higher baseline ownership (at Time 1) continued to do so after the autonomy support manipulation (at Time 2), $\beta = .81$, $SE = .05$, $t(205) = 18.24$, $p < .001$. The main effects were qualified by a significant interaction between the two conditions in Step 2, $\beta = .09$, $SE = .06$, $t(204) = 2.12$, $p = .03$. Simple slopes showed that participants who thought of a conflictual identity experienced more ownership as a function of being in the autonomy-supportive condition, $\beta = .17$, $SE = .16$, $t = 3.10$, $p = .002$, though there was no effect for those who thought of a non-conflictual identity, $\beta = .00$, $SE = .17$, $t = 0.04$, $p = .97$. Thus, recalling a time when one received autonomy support only promoted feelings of ownership for those thinking of a conflictual identity.

Psychological Health

Similar to our approach for testing ownership, we regressed psychological health at Time 2 (after both manipulations) onto the autonomy support manipulation, identity conflict manipulation, and their interaction (at Step 2), controlling for psychological health at Time 1 (after the identity manipulation, but before the autonomy support manipulation). As expected, psychological health at baseline (Time 1) was linked to psychological health following the

autonomy support manipulation (at Time 2), $\beta = .86$, $SE = .04$, $t(205) = 20.76$, $p < .001$.

Looking at main effects of condition, although the identity conflict manipulation did not directly relate to psychological health, $\beta = .02$, $SE = .12$, $t(205) = 0.39$, $p = .70$, participants in the autonomy support condition reported greater psychological health than did participants in the low autonomy support condition, $\beta = .11$, $SE = .12$, $t(205) = 2.68$, $p = .008$. At Step 2, the two manipulations significantly interacted, $\beta = .11$, $SE = .06$, $t(204) = 2.82$, $p = .005$. Simple slopes indicated that participants thinking about a conflictual identity benefited from being in the autonomy-supportive condition in terms of their psychological health, $\beta = .21$, $SE = .16$, $t = 3.56$, $p = .001$, although there was no benefit for those who thought of a non-conflictual identity, $\beta = .01$, $SE = .17$, $t = 0.17$, $p = .86$.

Indirect Effects

We conducted a test of mediated moderation using the PROCESS macro (Hayes, 2013) to obtain bias-corrected bootstrapped estimates based on 10,000 bootstrapping samples. In this case, the interaction between the two conditions was the predictor, ownership at Time 2 was defined as the mediator, and psychological health at Time 2 as the outcome (see Figure 2). We controlled for baseline standing on measures and main effects of both autonomy support and identity conflict conditions. Findings showed ownership after the manipulation was linked to psychological health after the manipulation, $b = .20$, $t = 3.14$, $p = .002$. An initial analysis showed indirect effects of ownership explaining the interaction between the two conditions and psychological health, $b = .026$, $SE = .018$, 95% CI [.001, .078], an effect that was present for those who thought about a conflictual identity, $b = .076$, $SE = .056$, 95% CI [.003, .231], but was absent for those who thought about a non-conflictual identity, $b = -.016$, $SE = .060$, 95% CI [-.169, .078].²

Discussion

² **Alternative model with ownership as outcome.** Given ownership and psychological health were assessed concurrently, we conducted a second test of mediation similar to the first, but predicting ownership from psychological health. In this case, the indirect effect for the interaction was also significant, $b = .036$, $SE = .021$, 95% CI [.005, .095], though simple indirect effects were not present for either non-conflictual identities, $b = .006$, $SE = .028$, 95% CI [-.051, .064], or conflictual ones, $b = -.048$, $SE = .039$, 95% CI [-.001, .140].

Study 2 provided causal evidence for our hypotheses. It replicated and expanded on Study 1 where autonomy support was not manipulated and psychological health was not measured. After thinking of someone who supported (vs. did not support) their conflictual identity, participants reported more ownership around their selected identity. This effect was absent among those reflecting on a non-conflictual identity. Furthermore, new to this study, ownership indirectly explained why autonomy support for identity boosted psychological health for those thinking of a conflictual identity, suggesting that ownership is one reason why being supported in one's autonomy for an identity confers wellness.

STUDY 3

In a final study we once again tested the effects of autonomy support on ownership and psychological health, but instead of self-selected conflictual identities we focused on identities that are stigmatized or oppressed within the broader sociocultural context. As such we used samples of individuals with identities that are stigmatized or oppressed by society: women from Saudi Arabia who wrote about their gender, Latino/Latina Americans who wrote about their ethnicity, and LGB individuals who wrote about their sexual orientation. We compared them to samples of American women writing about gender, Caucasian Americans writing about ethnicity, and heterosexual individuals writing about their sexual orientation. While Saudi culture is moving toward empowerment of women there is still gender inequality (Al-bakr, Bruce, Davison, Schlaffer & Kropiunigg, 2017), and studies of countries worldwide rank Saudi Arabia as among the highest in gender inequality (The Global Gender Gap Report, 2016). As such, we expected that Saudi women may face more discrimination and stigma related to their gender (Doumato, 1992; Le Renard, 2008), and would therefore be more likely to benefit from autonomy support of those identities, whereas the same would not be true for women living in the US, where, though still subject to gender inequalities, women feel largely more accepted (Boudet, Petesch, Turk, & Thumala, 2013). Similarly, we expected that individuals who have a Latino/Latina identity would be more vulnerable to stigmatization as compared to those who are White (Arzubiaga & Adair, 2009; Caplan, 2007; Valverde, 2004). Finally, we tested a third stigmatized group, LGB individuals (e.g., Human Rights Campaign, 2010). In this study we again tested all three hypotheses:

That autonomy support would link to more ownership (H1), that this relation would be moderated by identity conflict, this time operationalized in terms of holding a stigmatized identity (H2), and that these relations would also be present in relation to well-being (H3).

Method

Participants, Procedure, and Measures

This study consisted of three subsamples and all procedures were first approved by the University of Essex Human Subjects Ethics Committee. In all cases, we aimed to recruit as many participants in a set time-period (e.g., in an academic semester); yet, given the large sample size across the three subsamples we observed a power of .99 for this study. The first subsample was 139 married women from Saudi Arabia ($n = 64$) and married or dating from the US ($n = 75$) who completed the study in-person or online. Ages ranged from 18 to 55 years ($M = 27.04$ years, $SD = 9.55$). Community participants (who were not compensated) were recruited by an experimenter, through word of mouth, online, and by email, and were asked to take part in a study titled “all about me”. Participants completed surveys from our previous studies assessing autonomy support ($\alpha = .94$), ownership ($\alpha = .95$), and psychological health ($\alpha = .89$). Participants reported on all three variables in terms of three key relationship contexts: their family, their friends, and romantic partners (Legate et al., 2012). This approach allowed us to test differences across social relationships, but within subjects. Scores for the three different relationships were kept separate when analyzed. We selected romantic partners as the third target on which participants should reflect because many Saudi women do not have frequent contact with another peer group. Surveys were translated to Arabic and back-translated by an independent researcher.

An additional sample of 134 students, 73 who identified as Latino/Latina and 60 who identified as White, took part in a study titled “all about me” in exchange for course credit in a US university. Ninety-nine were women, whereas 35 identified as men, and ages ranged from 18 to 28 years ($M = 19.1$ years, $SD = 1.45$). Participants completed the autonomy support for identity scale ($\alpha = .91$), ownership for identity ($\alpha = .94$), and psychological health ($\alpha = .92$) scales, thinking back to their experiences when with their family, friends, and romantic partners or school peers (if they lacked a romantic partner).

A final sample of 270 community members and students were recruited through word of mouth, online, and by email in the U.K. To get a sufficient subsample of LGB individuals, LGB participants were also recruited using a snowball sampling technique, where the online link to the questionnaire was emailed to LGB community organizations, and members were asked to pass it on to individuals who met the study criteria (i.e., other LGB individuals). Of participants, 104 identified as straight, 94 identified as gay men, 39 as lesbian, 33 as bisexual. In addition, 169 identified as women, 97 as men, 1 transgender female, 1 transgender male, and 1 preferred not to say. Ages ranged from 18-55 years ($M = 23.4$ years, $SD = 7.61$). As in the other two samples, participants completed the autonomy support for identity ($\alpha = .94$), ownership ($\alpha = .95$), and psychological health ($\alpha = .93$) scales in the same three contexts. Given the exploratory and often difficult nature of these data collections, in all cases we ran studies until the end of term; in the case of community samples, student experimenters were no longer available after the end of term. Participants were not compensated for taking part.

Results

Analytic Strategy

Basic correlations among major study variables are presented in Table 1. To account for the nested data (in this case relational target nested within person), we used hierarchical linear models as in Study 1. All participants tested were included in analyses, and there was little missing data (<1%). Here, we defined relationship-specific data nested within participants at Level-1 as autonomy support for identity, perceived ownership, and well-being when with family, friends and romantic partners. Identity type was defined at Level-2. Please see supplemental materials for more on these models, and findings from initial tests evaluating differences in correlations of interests across the three different samples. All findings for multilevel models are presented in Table 3.

Ownership

Testing the model predicting ownership described above, results showed that at Level-2, participants reported lower ownership for conflictual identities, $b = -.49$, $t(503) = -4.20$, $p = .001$. Controlling for this, autonomy support for identity was positively associated with ownership at Level-1, $b = .45$, $t(1487) = 14.21$, $p < .001$. Autonomy support further

interacted with conflict of identity, $b = .41$, $t(1487) = 6.12$, $p < .001$ (Figure 3), and simple slopes showed that autonomy support predicted ownership in those who reported conflictual identities, $b = .46$, $t = 16.71$, $p < .001$, and less so in those who reported less conflictual identities, $b = .21$, $t = 3.66$, $p < .001$. This finding is largely in line with those from previous studies, and supports our hypothesis (H2) that individuals stand to benefit more from receiving autonomy support for conflictual identities. In this case, the conflict resulted from holding a stigmatized or oppressed sexual, ethnic, or gender identity.

Psychological Health

We ran a similar model with psychological health as the outcome, and ownership added as a second Level-1 main effect (with no interaction defined). Surprisingly, those with conflictual (vs. non-conflictual) identities had higher psychological health, $b = .20$, $t(503) = 2.25$, $p = .03$. Controlling for this, autonomy support for identity (our main predictor) was linked to psychological health, $b = .21$, $t(1487) = 9.00$, $p < .001$. As was the case when predicting ownership, the effect of autonomy support on psychological health (an effect at Level-1) interacted with identity type at Level-2, $b = .15$, $t(1487) = 3.18$, $p = .002$ (Figure 3). Simple slopes revealed that the effect was robust when identities were conflictual, $b = .27$, $t = 8.81$, $p < .001$, and weaker when identities were non-conflictual, $b = .12$, $t = 3.38$, $p < .001$.

Indirect Effects

Mediated moderation for the autonomy support X conflict interaction. As in Study 2, we explored whether an indirect effect would be present linking autonomy support for conflictual and non-conflictual identities to psychological health through ownership (depicted in Figure 2). To test this within the multilevel models, recommendations by Zhang, Zyphur and Preacher (2009) were followed. This approach separates within- and between-person effects by group centering the predictor (autonomy support) and the mediator (ownership) at Level-1, and entering each person's mean for autonomy and ownership across relationships at Level-2. Estimating these effects at Level-2 avoids Type-1 error and potential confounding of the mediation effect. Confidence intervals for indirect effects were calculating using Tofighi and MacKinnon's (2011) web-based utility. The moderated mediation was significant within-person (indirect effect = .03, $SE = .02$, 95% CI [.001 – .07]).

However, neither simple indirect effect was significant (conflictual indirect effect = .04, SE = .03, 95% CI [-.02 – .11]; non-conflictual = .02, SE = .01, 95% CI [-.01 – .05]). However, collapsing across identity type, the mediation main effect of autonomy support on well-being through ownership was significant, indirect effect = .04, SE = .02, 95% CI [.001 – .07]. No between-person indirect effects were significant (CIs pass through 0), indicating that changes in psychological health resulted from autonomy support and ownership provided in the context of specific relationships, and not by overall levels of autonomy support and ownership people experienced.³

Discussion

In a final study we examined how autonomy support facilitates ownership of identities that are stigmatized at a broader societal level as compared to identities that are not stigmatized, or in the case of U.S. women, less so (World Economic Forum, 2016). This provided a more ecologically valid test of our hypotheses. The same pattern emerged across all stigmatized identities (sexual minorities, ethnic minorities, gender minorities): Individuals felt less ownership of these identities (as compared to those reflecting on their non- or less-stigmatized identities), and autonomy support was particularly beneficial for ownership of stigmatized identities. Further, ownership explained why autonomy support for identity linked to psychological health, though results were inconclusive as to whether this indirect effect was stronger for those with a more stigmatized identity. Such consistency in patterns of effects across samples suggested some universality to our model, as all effects were replicated in this cross-cultural sample.

General Discussion

In these studies we explored how feeling supported in experiencing and expressing one's identities promotes greater identity ownership (i.e., accepting and integrating the identity into one's self-concept) and better psychological health. We were especially

³ **Alternative model with ownership as outcome.** As in Study 2, we conducted a second test of mediation testing an alternative hypothesis, that psychological health would mediate the effects of autonomy-support and ownership. Here, there was no indirect effect linking the interaction to ownership, (within indirect effect = .02, SE = .01, 95% CI [-.001, .04]; between indirect effect = -.001, SE = .004, 95% CI [-.01 – .01]), and none linking the main effect of autonomy support (within indirect effect = .02, SE = .01, 95% CI [-.001, .04]; between indirect effect = -.003, SE = .02, 95% CI [-.04 – .03]).

interested in the benefits of autonomy support for conflictual identities, given a literature showing that individuals who hold stigmatized identities suffer mental health costs (Mac, Poon, Pun, & Cheung; 2007; M. Schmitt, Branscombe, Postmes, & Garcia, 2014; Thoits, 2012), and because our guiding framework, self-determination theory (SDT), posits that identities which are shameful or difficult to accept elicit more defensive and compartmentalization responses (Hodgins & Knee, 2002). In three studies, we examined the effect of autonomy support for identity on individuals' ownership of identities. In line with SDT-guided literature (R. Ryan & Deci, 2004; Weinstein et al., 2012), we observed a consistent relation between autonomy support and ownership among participants who reflected on identities that caused little conflict in their lives. As well, thinking of a self-selected conflictual identity (Studies 1 and 2) or focusing on identities stigmatized or oppressed within society (Study 3), autonomy support from important others predicted ownership of those identities.

Not all personal identities, however, are equal. In certain instances, individuals may have a difficult time owning parts of their identity for personal reasons, such as when they are not living up to their own values, standards, or expectations (Higgins, 1987). Identities can also be difficult for individuals to embrace due to rejection from others, such as when those identities are stigmatized or oppressed within society. Across studies, people with these conflictual identities benefited more strongly from receiving autonomy support for their identity compared to those with less conflictual identities. Indeed, in our experimental Study 2, only the effects of autonomy support for conflictual identities emerged; there were no benefits of autonomy support for non-conflictual identities for identity ownership.

Along with benefiting identity ownership, we observed in our final studies that autonomy support has implications for psychological health when in, or reflecting on, specific interpersonal relationships and interactions. These findings suggest that perceiving autonomy support for identity, especially a conflictual one, has tangible advantages for long-term psychological health and life satisfaction (Danner, Snowdon, & Freisen, 2001; Howell, Kern, & Lyubomirsky, 2007).

Across three studies, these patterns were found to occur daily (Study 1), as a function of context (Study 2), and as a function of support in specific relationships (Study 3). Such a consistency across levels of experience is consistent with theorizing that autonomy is important at individual and contextual levels (Vallerand, 1997), and with developmental work suggesting that even brief experiences of autonomy support are meaningful in shaping individuals in the long term (R. Ryan & Deci, 2017). Furthermore, this research is in line with recent work showing that autonomy operates in comparable ways in the short and long-term (Weinstein, Rodriguez, Knee, & Kumashiro, 2016), as well as research showing that autonomy affects helpers' experiences similarly as a function of their autonomy in that day, in a brief lab paradigm, or more generally (Weinstein & Ryan, 2010).

Findings relating autonomy support for identity to psychological health add to the literature on stigmatized identities by demonstrating that important others can promote or undermine the positive identity processes and psychological health of these individuals. As such, these findings complement existing research illustrating the relevance of reactions of important others to people disclosing a stigma – namely, individuals show better mental health outcomes when important others react with acceptance versus rejection (Major & Gramzow, 1999; C. Ryan, Huebner, Diaz, & Sanchez, 2009; W. Ryan et al., 2015). Here we showed that reacting with acceptance could take the form of being encouraged to express one's stigmatized identity fully and genuinely, and that such reactions could help individuals in terms of ownership along with psychological health.

Our findings complement other work documenting the negative effects of self-stigma, or applying a negative societal view of a group identity to oneself (Corrigan et al., 2006; Hatzenbuehler, 2009; Rüsch et al., 2009). Whereas self-stigma entails a tendency to disown the stigmatized identity, our findings show that social contexts that support autonomy for these identities might ameliorate self-stigma to the extent they increase ownership, with implications for the mental health of these vulnerable populations (also W. Ryan et al., in press). It also complements work finding that social support predicts better acceptance of a stigmatized identity (Rosario, Schrimshaw, & Hunter, 2008; Shilo and Savaya, 2011), and better psychological functioning in stigmatized groups (e.g., Beals, Peplau, & Gable, 2009).

Novel to this work, we examined these three constructs simultaneously across varied identities, using a specific type of support that conveys acceptance and non-judgment – something particularly salient to those with an identity that is broadly stigmatized.

In Study 2, the positive effects of autonomy support for conflictual identities on psychological health were indirectly linked through participants' reports of greater ownership of identities, indicating that the greater self-integration and self-acceptance reflected in ownership in itself benefits wellness. This finding is in line with prior research showing that greater integration of both positive and negative memories enhances well-being (Weinstein et al., 2011) and that self-congruent goals promote well-being (Sheldon & Kasser, 1995; 2001).

Much of the literature documenting the psychological benefits of autonomy support has focused on that support when it is received (or perceived) in a general sense, as when a person is told "I support you in being yourself." Autonomy support links to more psychological health across cultures (Chirkov & Ryan, 2001) and revealing one's sexual orientation (i.e., coming out) benefits psychological health in autonomy-supportive contexts (Legate et al., 2012). Our focus was not on this well-documented global sense of autonomy support, but rather on the level of support individuals received vis-à-vis specific identities. Moreover, within this refining of the contextual nature of the autonomy support received, we addressed the key distinction between identities that are relatively easy to embrace and those that are difficult to own. Placed into this context, we illustrated that the typical findings of global autonomy support predicting greater levels of identity-related ownership (Ryan & Deci, 2004) may be more nuanced when support is conceptualized at the level of specific identities. This could be especially important for those grappling with a conflictual or stigmatized identity, given that support specifically for that identity may give individuals more assurance that others will accept it. Better understanding of when and why general versus issue-specific autonomy support benefits individuals represents a promising area for future investigations. Further, examining other specific forms of autonomy support, such as for painful or difficult experiences, could be a fruitful area for future research.

Our findings highlight the utility of autonomy support interventions with families, and in schools and workplaces, to encourage environments that support individuals in their many

identities – both conflictual and not conflictual. Broad-scale interventions that boost autonomy support could help people experience more identity ownership and psychological health across social contexts. Additionally, our findings speak to the relevance of targeted autonomy support, particularly for stigmatized or marginalized, or otherwise challenging identities. As such, our work has implications for counselors and clinical practitioners, suggesting that there is unique value in conveying autonomy support for specific identities with which clients may grapple (e.g., having a serious mental illness, being overweight or obese). It also suggests the value of helping clients locate persons in their lives who are likely to provide autonomy support for their devalued identity.

Limitations

Our research has several limitations that point to future empirical directions. To begin, all data were self-reported. Follow-up studies should examine behavioral indicators of identity ownership or psychological health, such as involvement in communities related to those identities and objective indicators of psychological health. Importantly, the identity conflict measure showed low reliability in Study 1 in contrast to the longer original version of the scale (Andrews, Qian, & Valentine, 2002), and longer assessments of conflict may be considered in future research to assess this complex construct. A further concern related to these tests is that measures were modified for use in the present studies – that is, they were shortened in order to reduce participant burden when providing repeated responses, and they were reframed to specifically refer to identity. That these measures showed consistent findings across the three studies is promising, but they should be validated in future research.

In addition, assessment and sampling could be improved in future research. As an example, in Study 3 we examined differences as a function of gender, but did not assess minority genders in this study; as such, some participants may not have been representative of their condition. As well, comparisons in Study 3 were not always collected from individuals within the same culture (e.g., Saudi women and U.S. women), and as such findings may have differed as a function of culture rather than being specific to the construct being tested. Further, comparing Saudi women to Saudi men in future research would allow for a comparison group facing no gender inequality. Although SDT gives us reason to believe

reactions to these constructs are universal (see R. Ryan & Deci, 2017), and indeed we found consistent support for our model across the three subsamples, this issue should be more carefully studied in the present context. Studies systematically testing the same stigmatized and non-stigmatized identities across a number of cultures would be a fascinating direction for the future. Further, though autonomy support was manipulated experimentally, it was not manipulated in the immediate. Future work should examine proximal and distal outcomes of interacting with an autonomy-supportive versus controlling individual in a laboratory setting. Though ownership appeared to explain substantial variance in this link, other mechanisms may also link autonomy support for identity and psychological health, which we have not explored in the present research. Future studies could focus on factors driving these effects, such as authenticity, defensiveness, or feelings of relatedness to supportive others (see supplemental materials for additional thoughts on this). In addition, despite consistent patterns across studies it is important to replicate these findings in those same populations, as well as in other stigmatized populations, to ensure reproducibility of these results and to understand nuances across stigmatized groups.

Concluding Remarks

In three studies we explored how social contexts that are autonomy supportive for identities – that is, that promote one's full and genuine experience and expression of that identity – enhance ownership of the supported identities and psychological health, more broadly. These studies were also the first to directly compare conflictual and non-conflictual identities when examining the outcomes of autonomy support. We operationalized conflict broadly, namely through subjective ratings that one's self-selected important identities are conflictual, or, in our final study, through holding one of three identities that were stigmatized in the society in which our participants lived. Further, we found convergence for our hypotheses using both daily diary and cross-sectional studies that were more naturalistic, and an experimental paradigm that supported our causal assertions. Our findings inform the self and stigma literatures, and aid in our understanding of how individuals experience and respond to others' reactions to their identities. Also, the findings open up promising and exciting research directions, including exploring why people benefit from autonomy support

for identity, how autonomy support for identity operates in stigmatized and self-stigmatizing individuals, and what the long-term impact is of having important relationships that are not autonomy supportive. Finally, this research has important applications in clinical and counseling settings, pointing to the benefits of counselors and clinicians providing autonomy support for clients grappling with a conflictual or stigmatized identity. It underscores the benefits of identity affirmative therapies, such as LGB-affirmative therapy (Pachankis & Goldfried, 2004), where counselors and clinicians help the client move towards self-acceptance of his or her LGB identity. The research presented here may help, in part, to explain beneficial outcomes of these types of therapy. Moreover our findings suggest that understanding how autonomy support by therapists facilitates identity ownership and psychological health in clients is an exciting direction for future research.

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Table 1

Correlations between Major Study Variables for All Studies.

	1	2	3
Study 1			
1. Daily autonomy support for identity			
2. Daily ownership	.32**		
3. Identity conflict	.02	-.24**	
Study 2			
1. Autonomy condition (<i>high</i> =2, <i>low</i> =1)			
2. Identity condition (<i>conflictual</i> =2, <i>non-conflictual</i> =1)			
3. Ownership residual Time 2-1	.18*	-.00	
4. Psychological health residual Time 2-1	.21**	-.02	.21**
Study 3			
1. Autonomy support for identity			
2. Ownership	.65**		
3. Psychological health	.36**	.25**	
4. Identity conflict	-.13**	-.15**	.08**

* $p < .05$; ** $p < .01$

Notes. Study 2 “residual” in reference to variables 3 and 4 = scores that represent the standardized residual remaining after time 2 scores were regressed onto time 1.

Table 2

Effect Sizes and their Confidence Intervals for Main and Interaction Effects for all Studies

	Autonomy-support		Interaction		Simple slope low conflict		Simple slope high conflict	
	<i>d</i>	95% CI	<i>d</i>	95% CI	<i>d</i>	95% CI	<i>d</i>	95% CI
Study 1 (n = 66)								
1. Ownership	.54	.47, .61	.30	.25, .35	.32	.25, .39	.49	.40, .58
Study 2 (n = 209)								
1. Ownership	.22	.01, .44	.43	.31, .55	.23	-.07, .52	.63	.30, .96
2. Psychological health	.39	.16, .63	.39	.27, .50	.06	-.02, .14	.67	.36, .98
Study 3 (n = 543)								
1. Ownership	.73	.67, .79	.32	.18, .46	.27	.15, .39	.89	.77, 1.00
2. Psychological health	.47	.43, .51	.16	.06, .26	.26	.18, .34	.68	.62, .74

*Note: Effect sizes were calculated using formulation for Cohen's *d*. 95% confidence intervals for each effect size are also presented.*

Table 3

Summary of HLM Fixed Effects and Deviance Statistics for Studies 1 and 3

	Ownership			Psychological Health		
	<i>b</i>	<i>t</i>	AIC	<i>b</i>	<i>t</i>	AIC
STUDY 1						
Level 3 controls						
Conflictual own* initial	.39	6.47**	2107.79			
Non-conflict own* initial	.27	2.79**				
Level 1 indicators						
Identity conflict	-.93	-7.68**				
Autonomy support	.44	6.39**				
Interaction conflict X autonomy	.30	3.59**				
Autonomy for high conflict	.32	5.46**	1022.00			
Autonomy for low conflict	.28	3.85**	1074.37			
STUDY 3						
Level 2 controls						
Identity conflict at intercept	-.49	-4.20**	4844.97	.20	2.25*	4285.95
Level 1 & 2 indicators						
Autonomy support (L1)	.45	14.21**		.21	9.00**	
Interaction conflict X autonomy (L2)	.41	6.12**		.15	3.18**	
Autonomy for high conflict (L1)	.46	16.71**	3081.64	.27	8.81**	2749.17
Autonomy for low conflict (L1)	.21	3.66**	1666.49	.12	3.38**	1457.14

Notes: L1 = level 1, L2 = level 2. Own* = ownership. In Study 1 initial ownership for both

conflictual and non-conflictual identities was included as a covariate at Level 3; no variables

were defined at Level 2. AIC = deviance for the model + 2(# of parameters), reported separately

for primary models with interaction effects and simple effects.

** $p < .01$, * $p < .05$

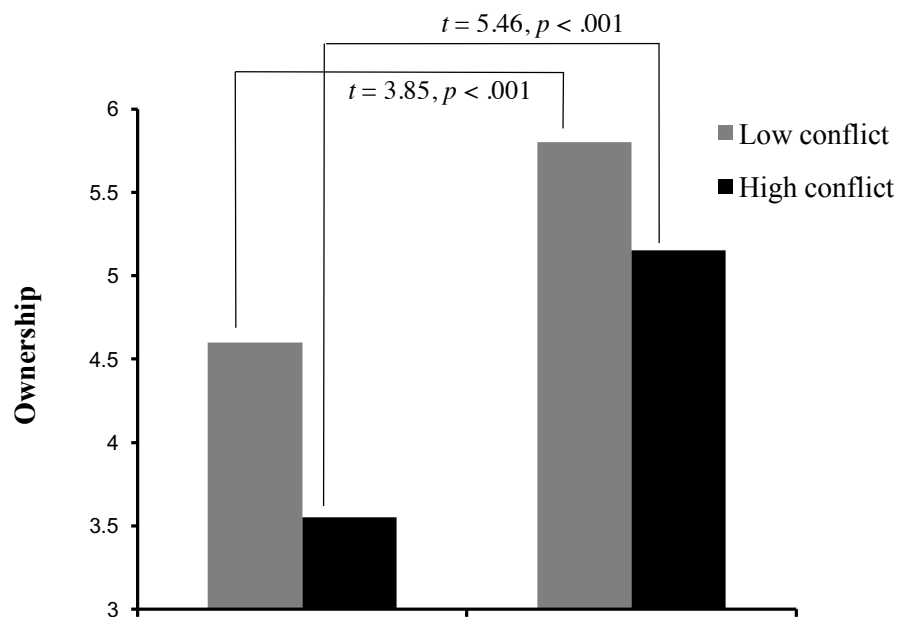


Figure 1. Study 1 autonomy support for identities (shown at ± 1 SD) predicting daily ownership of conflictual and non-conflictual identities separately. In this case, identity type was a within-subjects factor.

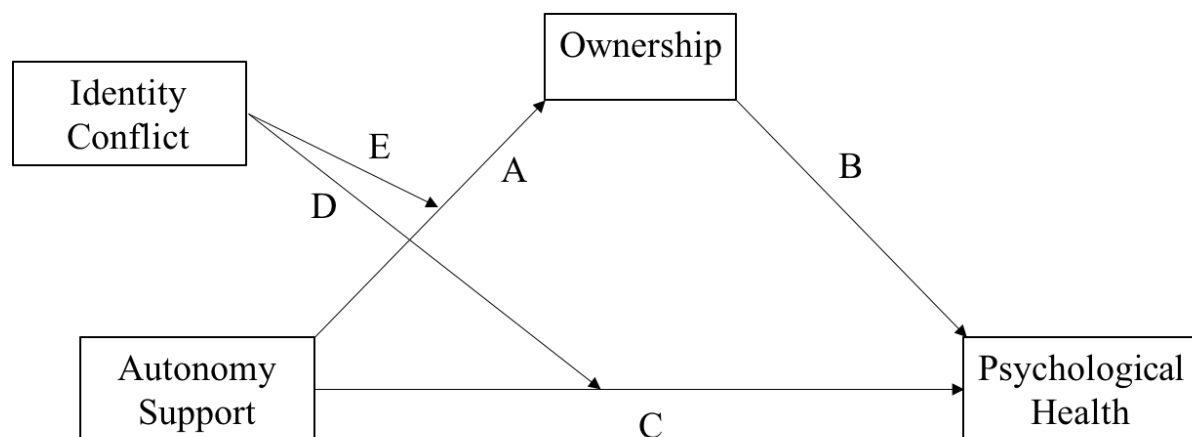


Figure 2. Mediated moderation model tested in Studies 2 and 3.

Note. We tested mediation by ownership for the main effect of autonomy support on psychological health (path C), and for the interaction of autonomy support and identity conflict (path D). To test mediation for the main effect, we examined the indirect effect AXB through ownership, and to test mediation for the interaction effect we examined the indirect effect EXB.

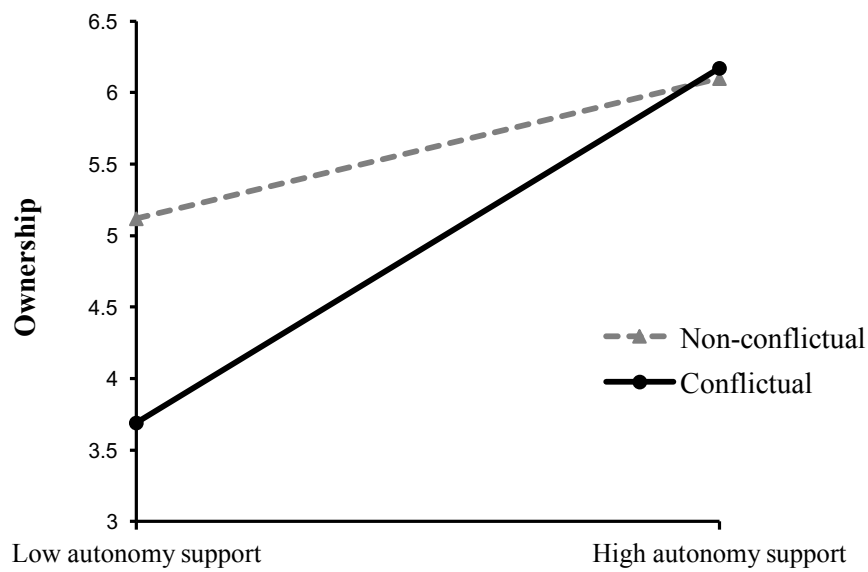
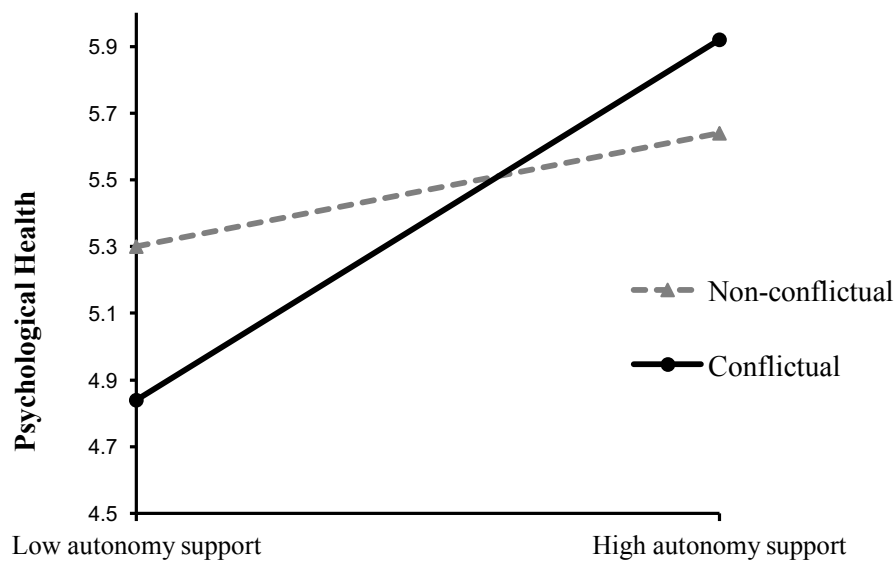
a.**b.**

Figure 3. In a, Study 3 interaction between autonomy support for identity (shown at ± 1 SD) and identity type (conflictual vs. non-conflictual) in predicting self-reported ownership. In b, Study 3 interaction predicting self-reported psychological health.