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Kennon M. Sheldon ^{a,b,*}, Tamara Gordeeva^b, Dmitry Leontiev^b, Martin F. Lynch^{b,c,d}, Evgeny Osin^b, Elena Rasskazova^b, Liudmila Dementiy^e

^a University of Missouri, United States

^b International Laboratory of Positive Psychology of Personality and Motivation, National Research University Higher School of Economics, Russia ^c University of Rochester, United States

^d Kazan Federal University, Russia

^e F.M. Dostoevskiy Omsk State University, Russia

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1. Introduction

"Freedom means responsibility."

[George Bernard Shaw]

"Freedom makes a huge requirement of every human being. With freedom comes responsibility."

[Eleanor Roosevelt]

"Freedom of will is the ability to do gladly that which I must do."

[Carl Jung]

"The price of freedom is responsibility, but it is a bargain, because freedom is priceless."

[Hugh Downs]

These familiar sayings converge in the idea that freedom is a desirable psychological good, one that is worth paying a considerable price for. They also converge in the idea that this price often involves acting responsibly vis-à-vis others; in Jung's words, free-

 $^{\ast}~$ The study has been funded by the Russian Academic Excellence Project '5-100'. $\ast~$ Corresponding author.

E-mail address: sheldonk@missouri.edu (K.M. Sheldon).

ABSTRACT

In three cross-cultural studies we tested the premise that psychological freedom (aka autonomy) and personal responsibility are complementary rather than conflicting, and the further premise that freedom causes responsibility, rather than vice versa. In all studies, (a) supporting autonomy in an experimental context increased responsibility-taking after failure, whereas emphasizing responsibility did not; (b) measures of dispositional autonomy and dispositional responsibility were positively correlated; (c) and responsibility-taking was slightly lower in Russia, a country typically ranked lower in world freedom indices. Supporting a control sensitivity explanation of the socio-cultural differences, the last study found that Russians were inclined to take *more* responsibility than Americans, but only when it was requested (not demanded) by family/friends (but not by authorities or by strangers).

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dom comes with inescapable social obligations, paradoxically seeming to limit freedom. Despite the paradox, the quotes also converge in the idea that there is a positive and perhaps self-reinforcing association between freedom and responsibility; when there is more freedom there is also more responsibility, and where there is less freedom, there is less responsibility. The main purpose of this article is to unpack these deceptively simple ideas. We hope to determine whether freedom and responsibility really do "go together," and if they do, whether one is causally prior to the other. We also test contextual and cultural factors that may limit or enhance the development and expression of both freedom and responsibility.

1.1. Definitional issues

1.1.1. Freedom and autonomy

First it is necessary to define what we mean by freedom and responsibility, because these are complex concepts with long histories of usage. "Freedom" is a personal and/or social good that can be conceptualized in political, philosophical, scientific, ethical, and psychological terms, and/or in terms of liberty, autonomy, free will, individualism, and more. In psychology, freedom has been studied in many ways, including in the context of reactance theory (Brehm, 1989), in the context of the free will versus determinism debate (Wegner, 2002), in the context of experimental and priming



studies (Aarts & van den Bos, 2011; Baumeister, 2014), and in the context of Self-determination theory (Deci & Ryan, 1985a, 2000). The Oxford English dictionary's (OED's) first definition of freedom is "the power or right to act, speak, or think as one wants without hindrance or restraint." Clearly, such a power may be in part a personal disposition or ability ("He is able to act freely"), and in part something that is supported or affirmed within a context or culture ("the situation permits free action"). We addressed both ways of construing freedom in this research, in order to evaluate the generalizability of our effects to both the person and situation.

However in order to align our investigations with existing terminology and research in this area, we will primarily use the word "autonomy" rather than the word "freedom." This is in part because autonomy is a psychologically richer term that can better address both the personal attribute of feeling autonomous and free, and the contextual attribute of supporting autonomy and free choice. Also, the term "autonomy" is broader than mere free choice, encompassing not just whether one selected one's behavior within a particular situation, but also, whether one feels a sense of ownership and volition regarding one's behavior, self-selected or not. As outlined by Self-determination theory (explicated in greater depth below), one can feel autonomous even in the absence of choice, depending on one's attitude towards the mandated activity.

1.1.2. Responsibility

"Responsibility" is also a personal and social good that can be conceptualized in many different ways, i.e. in terms of moral, legal, collective, social, professional or personal responsibilities, and/or in terms of duties, obligations, liabilities, and more. In psychology, responsibility has been studied in the context of attribution theory (e.g. Robbennolt, 2000; Weiner, 1995), excuses theory (Schlenker, 1997), and blame theory (Alicke, 2000), and has also been studied in the domains of moral behavior (e.g., Nahmias, Morris, Nadelhoffer, & Turner, 2005), work behavior (Nordbye & Teigen, 2014), health behavior (e.g., Brownell, Kersh, Ludwig, Schwartz, & Willett, 2010) and environmental behavior (e.g., Hines, Hungerford, & Tomera, 1987).

The first OED definition of responsibility is "the state or fact of being accountable or to blame for something." When they are responsible, people expect to receive consequences for situational outcomes, be they positive or negative. In this research we focused on personal responsibility (Rychlak, 1979), conceptualized as an intentional state or stance in which one is ready to take action and to accept resultant consequences (Rychlak, 1979). Personal responsibility is a broader term than moral responsibility, because one can take personal responsibility for tasks or goals that have no particular moral weight. Personal responsibility is also distinct from social, professional, legal, and collective responsibility, because these refer mainly to obligations imposed on individuals from without, and personal responsibility refers to self-determined stances and commitments. Of course, such commitments may once have been imposed by others, and are not immune to social influence in the present. Also, people are not always successful at fulfilling responsibilities; they may lapse in their duties, and then make questionable excuses for these lapses, as will be considered in a later section.

As with autonomy, responsibility can be a psychological disposition ("He is a responsible person"), and it can also be something demanded or expected within a context ("the situation requires that actors take responsibility"). We addressed both ways of construing responsibility in this research, in order to evaluate the generalizability of our effects to both the person and situation. Notably, the quotes which began the article, and our discussion of personal responsibility above, primarily focus on responsibility as a disposition that can presumably be cultivated.

1.2. Self-determination theory and personal responsibility

As a basic framework for conceptualizing psychological freedom and its manifestations, we used Self-determination theory's conception of psychological autonomy (SDT; Deci & Ryan, 1985a, 1991, 2000). According to SDT, autonomy is a basic psychological need for human beings, which must be satisfied if people are to thrive. To feel autonomous is to feel a sense of volition and selfdetermination, such that one fully concurs with and stands behind one's motivated behaviors. At the opposite extreme, to be nonautonomous is to feel controlled or coerced by others or by circumstances, such that one feels ambivalence or even a sense of compulsion with respect to one's motivated behaviors (Deci & Ryan, 1987).

Empirically, SDT views autonomy in several different ways. Two in particular are relevant to the person/situation focus of the current article. First, there is SDT's view of *autonomy orientation* as a basic personality disposition, involving a tendency to see situations as offering choices rather than as controlling one's behavior, and also a tendency to try to regulate one's own experiences and behaviors, rather than allowing oneself to be externally regulated (Deci & Ryan, 1985b). Autonomy orientation (Deci & Ryan, 1985a), and a related dispositional construct, autonomous functioning (Weinstein, Ryan, et al., 2012b), have been linked to many positive outcomes including ego development, authenticity, wellbeing, psychological need-satisfaction, and positive relationship processes.

Also relevant in this article is SDT's view of autonomy as autonomy support, which is an important feature of interpersonal environments (Deci & Ryan, 1991; Ryan, 1995). This is a particular type of motivational style that can be taken by authorities, i.e. parents, teachers, coaches, bosses, doctors, and so on (Ryan & Stiller, 1991). Authorities who support autonomy provide subordinates with choice, respect, and empathy, thereby empowering subordinates to better function, grow, and thrive. In contrast, controlling authorities who use "must" or "should" language, who blandish coercive rewards, and who communicate lack of interest in the subordinate's perspective, are generally less effective at promoting positive functioning and well-being within their charges, at least in the long term (Ryan & Stiller, 1991; Sheldon, Williams, & Joiner, 2003). Importantly, autonomy support is not mere permissiveness, according to SDT; supportive authorities can establish requirements, have expectations, and administer consequences. However, autonomy-supportive authorities try to downplay the power differential between themselves and subordinates, rather than call attention to or try to exploit that differential.

To summarize, dispositional autonomy orientation and contextual autonomy support have both been shown to have a wide variety of positive effects, as SDT predicts. However, no existing SDT studies have directly examined the effects of autonomy, either as a personal disposition or as a contextual provision, upon personal responsibility (Sheldon & Schachtman, 2007). This is an important omission because responsibility-taking, especially in the form of being willing to accept blame after a failure or setback occurs, involves a willingness to experience recrimination and negative affect, in the interests of maintaining solidarity with others and improving one's future performance. SDT assumes that autonomous functioning enables people to make objectively more adaptive choices, not just choices that "feel better" or are more satisfying of immediate needs (Ryan & Deci, 2000; Ryan, Legate, Niemiec, & Deci, 2012). Here is an important test-case: If autonomy is actually about self-enhancement (as a disposition) or

permissiveness (as a contextual provision), then autonomous, or autonomy-supported, participants should not accept blame; after all, they have the freedom to "act as they want without hindrance." However if autonomy is really a condition promoting adaptive engagement with the world, then autonomous participants *should* be willing to accept blame – that is, to "accept hindrance," in service of broader goals than merely protecting or enhancing their own momentary mood. We predicted that the latter pattern would be the case.

Although our focus on responsibility is novel, some recent SDT research has addressed similar ideas. One aspect of SDT focuses on the "organismic integration" process (Deci & Ryan, 2000), which involves coming to accept and own the various aspects of one's psyche, be they good or ill. Consistent with this, Legault et al. (2016) and Weinstein, Ryan, et al. (2012b) both showed that autonomously functioning individuals are more likely to accept and integrate the negative aspects and shortcomings of their character and identity. In a related vein, Legault and Inzlicht (2013) showed that more autonomous individuals are more neuro-responsive to self-regulation failures, despite the momentary painfulness of such experiences. Thus, we hoped that our study might add to an emerging picture in which autonomous functioning enables people to better accept and acknowledge, and thus better cope with, negative facts and emotions.

1.3. The triangle model and psychological responsibility

To conceptualize and measure levels of responsibility-taking (versus excuse-making), we drew from the Triangle model of Responsibility (Britt, 1999; Schlenker, 1997; Schlenker, Britt, Pennington, Murphy, & Doherty, 1994), which categorizes the excuses that people use in order to "minimize personal responsibility for events," especially negative events (Schlenker et al., 1994, p. 637). Excuse-making is an impression-management strategy deployed to deflect blame from outside, as well as an emotionregulation strategy deployed to deflect guilt from within. There are three vertices in the triangle postulated by Schlenker (1997); identity (self), prescriptions (of what is supposed to be done), and situations (in which prescriptions should be followed). Making excuses involves weakening the link between any two of the vertices, such as between self and prescription (denying that the prescription was your responsibility), between self and situation (denying that you had control in the situation), or between situation and prescription (denying that the prescription applied to the situation). We predicted that being exposed to contextual autonomy support within our experimental studies would cause more responsibility acceptance after failure and reduced excusemaking, especially the "it wasn't my problem" excuse, which breaks the link between self and duty.

1.4. The current studies

We conducted three large-sample studies in two cultures that vary in their societal support of citizen's freedom, namely, the U. S. and Russia. We thus considered autonomy and responsibility at four levels of inquiry; (1) as cultural differences, (2) as personality dispositions, (3) as types of contextual provision, and (4) as types of responses to those contextual provisions. We assumed that autonomy and responsibility indeed "go together," but also assumed that autonomy tends to be the causal factor in the relationship, rather than vice versa. Five specific hypotheses, and their rationales, are given below.

H1. Dispositional autonomy is positively associated with dispositional responsibility.

This correlational hypothesis, tested in all three studies, follows logically from the sayings that "freedom and responsibility go together." It also follows from the presumption that feelings of autonomy and of personal responsibility are both aspects of the mature or fully functioning personality (Erikson, 1961; Hy & Loevinger, 1996; Rogers, 1980). Autonomy and responsibility have been described as two complementary "faces" of the same personality-developmental process, in which the inward-focused and outward-focused aspects of personal causality are reconciled and integrated (Kaliteyevskaya & Leontiev, 2004; Leontiev, Kaliteevskaya, & Osin, 2011). In contrast, feeling nonautonomous and being irresponsible are both thought to be symptoms of a relatively low-functioning and less mature personality (Loevinger, 1976; Sheldon & Salisbury, 2017). To test H1 we employed the Index of Autonomous Functioning (IAF: Weinstein, Rvan, et al., 2012b) in all three studies, and also developed a new measure of dispositional responsibility, the Personal Responsibility scale, as described below.

H2. Contextual autonomy support increases responsibility-taking.

The idea that autonomy support promotes internal motivation is hardly new, having been shown, for example, in a variety of specific domains including work (Muraven, Rosman, & Gagné, 2007), education (Reeve, Ryan, Deci, & Jang, 2007), parenting (Grolnick & Apostoleris, 2002), health (Sheldon et al., 2003), and sport (Gillet, Vallerand, Amoura, & Baldes, 2010). However, as noted above, the idea that autonomy-support increases subordinates' willingness to accept blame after failure has not been directly examined by SDT researchers, a significant gap in the literature. We tested H2 in all three studies by manipulating autonomy (versus control) within experimental scenarios, expecting to observe greater blame-taking after failure, in the autonomy-supportive conditions.

H3. Situations that emphasize peoples' responsibility for outcomes raises their negative mood, but does not affect their willingness to accept blame after failure.

Together, H2 and H3 assume that causality flows from autonomy to responsibility, and not from responsibility to autonomy. This presumption is derived from SDT's depiction of psychological development as involving a dialectical process in which, over time, individuals engage with and attempt to internalize the psychologically impeding aspects of their own environments (Deci & Ryan, 1991). Positive resolution of the dialectic is not assured: In some cases, when controlling forces are too strong, healthy motivation may be completely subverted or distorted. In the SDT view, contextually imposed responsibilities are like the controlling impediments referenced in the OED definition of freedom, and thus are unlikely to produce feelings of autonomy, at least not in any direct sense. Instead, they are more likely to create anxiety and stress, i.e. negative affect.

To test H3, in all three studies we included manipulated responsibility as a second factor within our experimental designs. The manipulation hewed to the OED definition of the "fact" of responsibility, i.e. responsibility as a situational requirement, by telling participants either that they are liable to receive blame or praise in the situation, or that they are not liable for praise or blame. Note that the approach is balanced, valence-wise: in addition to being liable for blame, participants also stand to gain praise, if things go well. This approach also reflects precisely the situation that the Triangle model is designed to handle, in which people are nominally culpable, but may refuse to accept such culpability when problems arise. Again, H3 predicts no effect of this responsibility manipulation on actual felt responsibility (compared to the no-responsibility conditions), but does predict there will be heightened negative affect in the situation, because emphasizing culpability can be experienced as a controlling tactic (Deci & Ryan, 1987). Importantly, finding that *emphasizing* responsibility does not affect *felt* responsibility would not constitute a "failed manipulation;" this is precisely the point, that feelings of responsibility cannot be manipulated directly, even by clear communication of the concept or fact of responsibility. Instead such feelings have to be affected *in*directly, by emphasizing people's autonomy within the situation. Our aim is to show that the proper way to "manipulate" felt responsibility is to emphasize people's autonomy within the situation.

H4. Within less autonomy-supportive socio-cultural contexts, people are less willing to take personal responsibility.

Via H4. we endeavored to create a completely different test of our basic study premises, at the level of the cultural membership of the participant, rather than at the level of an experimental situation within a questionnaire. In the same way that experimental manipulations that limit autonomy are expected to undermine subjective responsibility-taking (H2 above), participants from socio-cultural contexts that limit autonomy might be expected to evidence less responsibility-taking (H4). We tested this idea by comparing American samples, taken from a country which stereotypically supports freedom, with Russian samples, taken from a country that stereotypically is less supportive of freedom. Indicating that there may be more than just stereotypes at work, all seven of the "World Freedom Indices" we examined ranked Russia lower than the U.S. in societal freedom (as of 2013, 2014, or 2015; see https://en.wikipedia.org/wiki/List_of_freedom_indices), based on a variety of objective indicators. Findings from psychological studies also support this data, showing that Russia is a country with a strong tradition of authoritarianism (McFarland, Ageyev, & Djintcharadze, 1996), where participants report experiencing lower autonomy support from parents and teachers than Americans (Chirkov & Ryan, 2001). H4 thus predicts that Russian samples might tend to be lower in responsibilitytaking, measured both as a trait, and as the willingness to take responsibility within an experimental situation modelling communication with a professor or boss. We also tested for interactive effects of cultural membership when testing Hypotheses 1-3, making no particular predictions.

We tested these four hypotheses within three different studies (termed Studies 1a, 1b, and 2), to evaluate the robustness of the expected effects. We also added an additional "control sensitivity" hypothesis (H5) in Study 2, concerning two proposed moderators of the expected culture differences (H4); specifically, *who* requests that the participant bear responsibility (family or stranger), and *how* they make the request (as a request or as a demand). H5 will be discussed prior to Study 2.

Given the absence of empirical evidence about the associations between freedom and responsibility, in all studies we sought to obtain enough N to detect effects of small size (r = 0.20, corresponding to $\eta_p^2 = 0.04$ and d = 0.40), typical in individualdifference research (Gignac & Szodorai, 2016). In all cases, our samples were sufficient to achieve a power of 0.80, except for hypothesis H1 in Study 1b (where the observed power was 0.68 and 0.70 for the US and Russian samples, respectively). For additional moderation hypotheses, we targeted effects of a smaller size ($\eta_p^2 = 0.01/$ $R^2 = 0.01$). The power to detect moderation by country for the association of freedom and responsibility (H1) effect was 0.64, 0.41, and 0.68 for Studies 1a, 1b, and 2, respectively. The power to detect the interaction of autonomy support with country (H2) was 0.53, 0.32, and 0.58, respectively. Because of the within-subjects design used to test H5 in Study 2, the power for the expected 3-way interaction (assuming $\eta_p^2 = 0.01$) and for the main effect of country (assuming η_p^2 = 0.04) was above 0.99.

2. Study 1a and Study 1b

2.1. Method

2.1.1. Participants and procedures

In Study 1 we conducted two different cross-sectional, crossnational surveys, mostly on-line but in some cases, on paper. The surveys contained a variety of measures, many of which are not presented in this article. Study 1a was a cross-sectional survey of 534 undergraduates (with complete data) from the U.S. (N = 333)and Russia (N = 201). In the combined sample there were 199 men and 334 women, with 1 missing gender information. Study 1b was a cross-sectional survey of 298 undergraduates also from the U.S. (N = 145) and Russia (N = 153). In the combined sample there were 72 men and 219 women, with 7 missing gender. Both the Study 1a and Study 1b U.S. samples came from the University of Missouri. The Study 1a Russian sample came from Altai State Educational Academy in Bijsk, Russia. Missouri and Altai are both large state universities set in relatively prosperous small cities (with populations around 200,000) located within the interior of their respective countries, with good but typically not highestquality students (in terms of academic aptitude). The Study 1b Russian sample came from Tomsk State University in Russia. Tomsk is another large state University within the interior of Russia, similar to Missouri. All samples had the same median age, of 19; in Study 1a there were proportionally more women in the Russian sample compared to the U.S. sample. Although there were some gender main effects, gender did not interact with any of our primary findings and is ignored henceforth.

Before research commenced all English-language scales were first translated into Russian by a native Russian-speaking psychologist, then reviewed and reformulated by a group of four additional Russian psychologists. Next, an American psychologist fluent in Russian completed a back-translation. Finally, the first author compared the original and back-translated versions, making remaining small final decisions on wording. We conducted measurement invariance analyses using a multi-group confirmatory factor analysis approach (van de Vijver & Leung, 2011) in Mplus 7.31 across the samples, examining configural, metric, and scalar invariance of all the multi-item measures between the US and Russian samples. The findings indicated that the metric invariance assumption was met for all instruments, supporting the possibility of comparing the associations involving these scales. The assumption of scalar invariance was not met in all cases, meaning that for some items, participants in different cultures with the same latent scores might not receive the same observed scores. This suggests that comparisons of observed mean scores across the cultures should be treated with caution, as we endeavor to do below. For economy we do not report the results of these measurement analyses in this article, but they are available as supplemental information.

2.1.2. Experimental design

In all studies the personality variables were administered first. Then, there were four versions of the surveys, corresponding to a 2 (Autonomy support: Yes or no) \times 2 (Responsibility emphasized: Yes or no) between-subjects experimental manipulation that was embedded within the survey (Cell Ns were 133, 136, 127, and 138 in Study 1a, 78, 78, 71, and 71 in Study 1b). To begin this task, Study 1a participants read: "Now we are interested in your likely reactions to a certain situation. Imagine you are taking a class in your major field, in the area of your career interest – a class that matters to you. Your professor has assigned you a certain project." In the two "autonomy supportive" conditions, the scenario description continued: "You have complete freedom to manage the project the way you want. That is, you can decide what to

do, and how to do it, while getting as much or as little input from others as you want. The decisions are all yours." This manipulation was written to represent the OED definition of freedom discussed above, but it is also consistent with the concept of autonomy support as defined by SDT (Deci & Ryan, 1987), although it does not contain other features of autonomy support beyond choice provision, such as provisions of perspective-taking, empathy, and a meaningful rationale, by the authority. We focused on the choice provision facet of autonomy support not only because of the OED definition, but also because it was most relevant for testing our idea that people are quite willing to take responsibility *if* they get to do the task their own way.

In the two controlling conditions, the OED definition was simply negated; participants instead read "You have very little freedom to manage the project the way you want. That is, the professor has told you exactly what to do, and has not asked for any input from you. The decisions are all his." To evaluate the generalizability of results, in Study 1b the "professor" became a "boss" and the achievement context became "a summer job" instead of a "class project." We expected to find the same effects in either case, because both involve an authority/subordinate relationship in which the authority has some degree of power over the subordinate (Deci & Ryan, 1987).

Our experiments also manipulated responsibility as a situational expectation, paralleling the OED definition of the "fact" of responsibility. In the two "responsibility" conditions of both studies, participants next read: "You have complete responsibility for the outcome of the project. This means you will be held to account for the results of your work. If you succeed you will get a very good grade, but if you fail, you might fail the class." Again, this manipulation was designed to reflect the OED's definition of responsibility as "the state or fact of being accountable or to blame for something," thereby making the Triangle model of excuses applicable. The two "no responsibility" conditions simply negated the message; participants instead read "You have very little responsibility for the outcome of the project. This means you will not be held to account for the results of your work. If you succeed at the project it will not help you, and if you fail, it will not hurt you."

2.1.3. Personality measures

2.1.3.1. The Index of Autonomous Functioning (IAF; Weinstein, Przybylski, & Ryan, 2012). Because our research group has had difficulty translating some of the GCOS autonomy orientation items (Deci & Ryan, 1985b) into Russian, we employed the Index of Autonomous Functioning (IAF) to measure dispositional autonomy. The IAF focuses on (1) the feeling of self-authorship, (2) the absence of susceptibility to control, and (3) interest-taking with regard to why one behaves and feels as one does. We omitted the 5-item interest-taking scale from our data collections because an introspective orientation was less central to the issues of freedom and personal responsibility with which we were concerned. The remaining ten statements were administered with a 1 (strongly disagree) to 5 (strongly agree) scale, and summed to derive what we call here a "trait autonomy" score (α = 0.73). Again, we expected this measure to be positively correlated with responsibility (H1).

2.1.3.2. The personal responsibility scale. This was a new scale developed for purposes of this study, after literature searches revealed that there were no existing measures deemed adequate. Based on a series of discussions within the research group, eleven candidate items were generated for the scale, which were first administered in study 1a with a 1 (strongly disagree) to 5 (strongly agree) scale. Preliminary item analyses suggested that three items ("I don't like it when something is expected of me" (R), "I don't like to accept strictly defined commitments" (R), and "I feel guilty when I don't do what I have committed to do") should be dropped. The remaining eight items reflected a single major principal component accounting for 43% of the variance (with the next three components accounting for 12%, 11%, and 10% of the variance). Example items include "I can almost always be counted on to be on time and to keep my promises," "When I am in charge of something I don't make excuses for my failures," "For me, it is important to deliver on my promises to others," "If I am engaged in some task, I will not leave it uncompleted without good reason," and "I believe you can't solve a problem unless you can admit responsibility for causing it." We averaged the eight items to derive a "personal responsibility" score ($\alpha = 0.80$ in study 1a and 0.71 in study 1b), and expected Russian participants to be significantly lower on this measure than American participants (H4).

In Study 1b we also administered the responsibility subscale from the Auckland individualism/collectivism scale (Shulruf, Hattie, & Dixon, 2007), with a 1–5 scale. The four item Auckland measure assesses responsibility as a facet of cultural individualism, and has items such as "I take responsibility for my own actions" and "It is important for me to act as an independent person" (alp ha = 0.54). Some of the items (like the latter example item) are not clearly face-valid measures of personal responsibility, perhaps explaining the lower alpha. Still, we decided to include the Auckland responsibility scale data in the article because of the scale's significant correlation with our own personal responsibility measure, because of the Auckland measure's corroboration of the results derived from our own measure, and because the measure is fairly commonly used in the literature.

2.1.4. Experimental study measures

2.1.4.1. Perceived autonomy support. As a manipulation check, participants rated the autonomy-supportiveness (versus controllingness) of the professor via three items: "I would feel the Professor had provided me with choices and options," "I would feel encouraged by the Professor to ask him questions," and "I would feel understood by the Professor." These three items were taken from the short form of the classroom climate questionnaire (Black & Deci, 2000), and were averaged (alpha = 0.81). All experimental variables were assessed with 1–5 scales, as above.

2.1.4.2. Failure-related negative affect. As a check for the responsibility manipulation, we administered items assessing the negative emotion expected to result, should failure occur. Again, we reasoned that merely emphasizing the participant's responsibility, as defined by the OED, would not make participants *feel* more responsible; instead, it would make them feel anxious or manipulated, because of the threat of control or punishment. The four items we administered were "If I failed in the project, I would feel guilt y/angry/ashamed/hostile" (alpha = 0.79). We expected that participants in the emphasized responsibility conditions would score higher on this measure.

Next participants read: "Suppose you really did fail at the project – things went wrong, for some combination of reasons. We are interested in what you would SAY to the professor, and also, what you would most likely THINK to yourself. These may be the same, but they might also be different." We included the "say" versus "think" wordings for exploratory purposes; however because this distinction did not yield any consistent differences, we averaged the ratings made for the two types of prompts.

2.1.4.3. Fail responsibility acceptance. All of the excuse-making items were previously employed by Sheldon and Schachtman (2007). Participants were first asked to rate how much explicit responsibility they would take, via the items "to what extent would you say/think that you were the cause of the failure?" and "to what extent would you say/think that the failure occurred

because of something you should have done differently?" After collapsing across the "say" and "think" ratings, coefficient alpha for a 4-item "Fail responsibility accepted" composite was 0.76.

2.1.5. Excuse-making

Next, participants rated the three excuses specified by the Schlenker Triangle model, by rating three *Not Controllable* items (e.g. "to what extent would you say/think that the failure occurred because you didn't have sufficient resources for doing the project?"), three *Not My Problem* items (e.g., "to what extent would you say/think that the project was not, or should not have been, your problem?"), and two *Unclear Situation* items (e.g. "to what extent would you say/think that the project was unclear, such that you didn't know what to do?"). Alphas were 0.68, 0.88, and 0.85, respectively, after averaging the saying and thinking ratings.

2.2. Results

Table 1 provides descriptive statistics for the major Study 1a variables, and Table 2 contains descriptive statistics for the Study 1b variables. Table 3 contains the means for the Study 1a experimental variables split by condition, including both participant's initial ratings regarding the scenario and their ratings after the failure situation was described. Table 4 contains the corresponding Study 1b experimental data.

H1 predicted a positive correlation between personal responsibility and trait autonomy. In Study 1a, this prediction was confirmed (r = 0.32, p < .001). The correlation did not significantly differ across the two cultural samples (0.30 in the U.S. and 0.35 in Russia). In Study 1b the prediction was also confirmed (r = 0.26, p < .001, rs = 0.31 in the U.S. and 0.22 in Russia), and was additionally observed for trait autonomy and the Auckland responsibility scale (r = 0.33, p < .01, rs = 0.25 in the U.S. and 0.39 in Russia). In Study 1b the two measures of personal responsibility (Auckland and our own) were themselves correlated at r = 0.37, p < .001.

Turning to the experimental data: in both Studies 1a and 1b the manipulation check variables performed as expected, with the two autonomy supportive conditions rated higher in perceived autonomy support and the two responsibility conditions rated higher in failure-related negative affect (see Tables 3 and 4; all four *ps* < .01). Perceived autonomy support was not affected by responsibility condition and failure-related negative affect was not affected by autonomy condition.

Turning to the substantive hypotheses: H2 predicted a main effect of manipulated freedom upon rated responsibility-taking (versus excuse-making) after failure. To test this, within each study (1a and 1b) we conducted four 2 (Task Assigner's Autonomy Support: Present or Absent) \times 2 (Participant's Culpability: Present or Absent) between-subjects ANOVAs, one for fail responsibility

Table	1
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Study 1a: de	criptive statistics.
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	Mean	SD	Range
Personality variables			
Personal responsibility	3.74	0.59	1.1-5.0
Trait autonomy (IAF)	3.34	0.51	1.8-5.0
Initial scenario variables			
Perceived autonomy support	3.55	0.84	1.0-5.0
Failure-related NA	3.51	0.85	1.0-5.0
After imagined failure variables			
Fail responsibility accepted	3.40	0.77	1.0-5.0
"Not my problem" excuse	2.63	0.84	1.0-5.0
"Not controllable" excuse	3.09	0.65	1.0-5.0
"Unclear situation" excuse	2.83	0.87	1.0-5.0

Table 2

Study 1b: descriptive statistics.

	Mean	SD	Range
Personality variables			
Personal responsibility	3.85	0.53	1.5-5.0
Auckland responsibility	3.98	0.50	2.5-5.0
Trait autonomy (IAF)	3.62	0.46	2.3-5.0
Initial scenario variables Perceived autonomy support Failure-related NA	3.37 3.55	0.96 0.78	1.0–5.0 1.0–5.0
After imagined failure variables			
Fail responsibility accepted	3.45	0.81	1.0-5.0
"Not my problem" excuse	2.55	0.87	1.0-5.0
"Not controllable" excuse	3.11	0.71	1.0-5.0
"Unclear situation" excuse	2.85	0.91	1.0-5.0

acceptance and three for the three excuse variables (see Tables 3 and 4). Socio-cultural group (U.S. vs Russia) was also included as a between-subjects factor in these analyses, but these main effects are presented separately, under the H4 tests. Suffice it to say here that cultural group did not moderate the H2 effects, within either study. Supporting H2, in both studies there was a significant main effect of the autonomy support manipulation on fail responsibility acceptance" after failure (in Study 1a, F(1, 530) = 12.55, p < .001, $\eta_p^2 = 0.023$, 90% CI 0.007–0.048; in Study 1b, F(1, 294) = 20.81, p < .001, $\eta_p^2 = 0.066$, 90% CI 0.027–0.116). Turning to the three excuse variables, manipulated autonomy support significantly reduced usage of the "not my problem" excuse within study 1a (F(1, 530)) = 4.54, p = .034, $\eta_p^2 = 0.008$, 90% CI 0.000–0.026, but not significantly within study 1b (F(1, 294) = 3.27, p = .072, η_p^2 = 0.011, 90% CI 0.000-0.039). In neither study did autonomy support affect usage of the "not controllable" or "unclear situation" excuses (ps > .10).

H3 expected that explicitly emphasizing responsibility would not affect responsibility acceptance. And indeed, in none of the Study 1a and Study 1b ANOVAs did the experimental manipulation of responsibility have a significant main effect on any of the outcome variables (all eight ps > .20). Also, no significant Autonomysupport × Responsibility interaction effects emerged (all eight ps> .20). Instead, the responsibility manipulation only affected negative affect, as described above.

H4 predicted that Russian participants would be lower in responsibility-taking. Because of scalar invariance issues discussed above, our results for H4 must be interpreted cautiously; however the results formed a somewhat consistent pattern. In study 1a the Russian sample was lower in the personal responsibility measure developed for this research (Ms = 3.64 vs 3.80, t(532) = 3.05, d =0.26, CI = 0.06–0.26, p < .01). A similar difference emerged in Study 1b although it was not significant (Ms = 3.80 vs 3.91, t(296) = 1.85, t(29d = 0.17, CI = -0.01 to 0.24, p = .064). In Study 1b, Russians were also lower in the Auckland responsibility measure (Ms = 3.90 vs 4.06, *t*(296) = 2.73, *d* = 0.32, CI = 0.04–0.27, *p* < .01). Incidentally, in neither study was there a cultural mean difference in the index of autonomous functioning. H4 was also supported in the two experimental studies: In Study 1a, Russian participants were lower than U.S. participants in fail responsibility acceptance for the assigned project (*Ms* = 3.27 vs 3.48, *t*(532) = 2.97, *d* = 0.26, CI = 0.0 7–0.34, p < .01), and also in Study 1b (*Ms* = 3.31 vs 3.60, t(296) =3.15, *d* = 0.37, CI = 0.04–0.46, *p* < .01). No other consistent mean differences by socio-cultural sample emerged in the experimental data.

2.3. Study 1 Discussion

Studies 1a and Study 1b both provided support for H1, that dispositional autonomy is positively associated with dispositional

Table 3

Study 1a: cell means for dependent measures in the failure scenario experiment (class project version).

	Freedom condition					
	<u>Autonomy supportive</u> Responsibility condition		<u>Controlling</u>			
	Resp	Not <u>Resp</u>	Resp	Not <u>Resp</u>	d for free/not free contrast	
Initial scenario variables						
Perceived autonomy support	3.83(0.73)	3.86(0.64)	3.26(0.91)	3.26(0.83)	0.73	
Failure-related NA	3.79(0.85)	3.31(0.83)	3.59(0.80)	3.33(0.84)	ns	
After imagined failure variables						
Fail responsibility accepted	3.58(0.76)	3.45(0.79)	3.31(0.75)	3.25(0.74)	0.33**	
"Not my problem" excuse	2.48(0.84)	2.63(0.86)	2.66(0.85)	2.75(0.78)	0.18	
"Not controllable" excuse	3.07(0.70)	3.06(0.61)	3.18(0.61)	3.06(0.66)	ns	
"Unclear situation" excuse	2.86(0.83)	2.77(0.94)	2.83(0.86)	2.85(0.86)	ns	

p < .05.

^{**} p < .01.

Table 4

Study 1b: cell means for dependent measures in the failure scenario experiment (summer job version).

	Freedom condition					
	<u>Autonomy supportive</u> Responsibility condition		Controlling			
	Resp	Not <u>Resp</u>	Resp	Not <u>Resp</u>	d for free/not free contrast	
Initial scenario variables						
Perceived autonomy support	3.93(0.65)	3.71(0.75)	3.02(0.96)	2.89(0.98)	1.02**	
Failure-related NA	3.80(0.71)	3.44(0.71)	3.52(0.77)	3.44(0.82)	0.17	
After imagined failure variables						
Fail responsibility accepted	3.76(0.64)	3.59(0.80)	3.24(0.79)	3.27(0.87)	0.47**	
"Not my problem"	2.36(0.75)	2.55(0.95)	2.69(0.87)	2.58(0.90)	0.20+	
"Not controllable"	3.20(0.67)	3.21(0.66)	3.16(0.72)	2.93(0.73)	ns	
"Unclear situation"	2.83(0.92)	2.83(0.90)	2.87(0.92)	2.88(0.92)	ns	

[°] p < .05.

⁺ p < .10.

^{**} p < .01.

responsibility. These studies also supported H2, showing that providing freedom of action (as defined by the OED) within a simulated achievement context promotes more responsibilityacceptance and less excuse-making upon failing at the task. In particular, participants in the autonomy support conditions showed less tendency to use the "not my problem" excuse, i.e. they did not attempt to deny the link between the self and the obligation, compared to the conditions in which the authority was controlling. Supporting H3, experimentally emphasizing the participant's responsibility for the results had no effects, beyond boosting failure-related negative affect. This shows that a responsibility manipulation derived from the OED definition of responsibility does not actually cause people to take responsibility, although it does affect mood. If authorities want their charges to be responsible, perhaps the only "manipulation" that will work is allowing them to act freely in the situation. Studies 1a and 1b also provided modest support for H4, that responsibility would be lower in Russian participants, by showing small Russia/U.S. mean differences in both dispositional responsibility and in failure responsibility-acceptance as measured in the experimental scenario. These findings are consistent with our proposition that in socio-cultural contexts where freedom is less salient or less wellsupported (as suggested by World freedom indices), there may be less responsibility-acceptance. However, the results concerning H4 must be treated very cautiously, especially considering the scalar invariance problems mentioned above. In Study 2, we examine the replicability of the pattern.

3. Study 2

Study 2, another cross-sectional study of Russian and American students, had several goals. First, we hoped to again replicate the H1 correlational results, the H2 and H3 experimental results, and the H4 cultural difference results. In addition, Study 2 tested an additional experimental manipulation of responsibility (H3). The Study 1a and 1b results suggest that reminding participants they are responsible may backfire, only boosting negative affect. In another attempt to affect felt responsibility directly, in Study 2 we asked participants to imagine making an explicit pledge of responsibility before the task began. We thought this might be more psychologically engaging and might help participants to feel a greater sense of personal responsibility. Of course, this was still only a hypothetical situation, still with a manipulation coming from the experimenters rather than from the participant, so there was no guarantee the new manipulation would have effects.

Additionally, in Study 2 we sought to test a new hypothesis, H5, with a second experimental task. The task was a 3 (Asker: Family/ friend, Authority/boss, or Stranger) \times 2 (Manner of Asking: Demanded versus Requested) repeated measures experimental study of prospective responsibility-taking. If national freedom indices are correct in their claim that Russian society is less autonomy-supportive than American society, then it may be an understandable and rational response for Russians to resist taking on responsibility, especially when it is demanded by controlling or untrusted strangers or authorities. In contrast, given Russia's status

as a moderately collectivist culture (Hofstede, 1993), Russians may be quite willing to take responsibility in close relationships with trusted others, even more so than Americans. We also postulated that Russians may be especially sensitive to the way in which they are asked to take responsibility (i.e., via a demand or via a request?), given their presumed chronic exposure to controlling situations (Radel, Pelletier, & Sarrazin, 2013; Radel, Pelletier, Sarrazin, & Milyavskaya, 2011; Sheldon & Watson, 2011). This "control sensitivity" perspective depicts Russians as especially sensitive to procedural justice, and the manner in which requests are made (Radel et al., 2011). Our 3-way interaction hypothesis was thus that Russians might even exceed Americans in accepting prospective responsibility, but only when family/friends (rather than authorities or strangers) request (rather than demand) that they do so. Russians may be willing to take on great burdens for close in-group members as long as those members do not act like out-group authority figures. The power to detect the expected 3way interaction effect (assuming $\eta_p^2 = 0.01$) and the main effect of country (assuming $\eta_p^2 = 0.04$) was above 0.99.

3.1. Methods

3.1.1. Participants and procedures

Study 2 was a survey of 598 undergraduates within the U.S. and Russia, conducted six months after the Study 1 surveys. Two hundred and eighty-seven participants were drawn from the University of Missouri in the U.S. (158 men and 127 women, 2 missing), 160 participants were drawn from Omsk State Technical University (48 men and 112 women), and 151 participants were drawn from Tomsk State University (47 men and 104 women). Like Altai Technical University in Study 1a and Tomsk State University in Study 1b and Study 2, Omsk State Technical University is a large interior university of fairly good quality, similar to the American comparison sample. The median age of participants was 19 and there was no age difference between the samples. Although there were significantly higher percentages of women in the Study 2 Russian sample, preliminary analysis found few main and no interaction effects involving gender, so we do not consider gender further.

3.1.2. Procedure and measures

The personal responsibility scale and index of autonomous functioning were again administered first. Then the same achievement scenario was again administered, this time with Study 1a's "Class project" version.

Although the autonomy support vs controlling between-subject manipulations remained the same, the responsibility manipulation was altered: In addition to the condition emphasizing that the participant was responsible and would experience benefits or punishments based on performance (as in Studies 1a and 1b), we also included a new condition reading "Before beginning the project, your boss asks you to take full responsibility for the outcome, and you do so: You pledge to take responsibility for doing the project." A third responsibility condition merely omitted all mention of the issue of responsibility, so that the effects of the two active conditions ("imagine pledging to take responsibility" and "imagine being told you are responsible") could be compared to a neutral condition. We omitted the Study 1a and 1b conditions in which absence of responsibility was emphasized ("you will not be held responsible"). Thus the study was a 2 (Freedom Context: Free versus Not Free) \times 3 (Responsibility Context: No Mention versus Pledging versus Culpability) between-subjects design (cell Ns = 90, 106, 97, 88, 114, and 103). The same dependent variable items were used as before, except that the perceived autonomy support and failure-related negative affect items were not given in Study 2. To test H5, concerning culture and social context, we constructed a 3×2 repeated measures experiment in which participants first read "Sometimes we willing to take responsibility for a task, and sometimes we are not. Please consider each situation below. How would the situation affect your willingness to stand up and take responsibility for doing a task?" They then rated six sentences describing a context which varied only by asker (*close friend/family member; authority/boss/official*; or *stranger in an emergency situation*) and manner of asking ("*insisted* that you take responsibility; *requested* that you take responsibility"). An example item is "…if an *authority, boss, or official insisted* that you take responsibility." A 1 (I would not want to take responsibility) to 5 (I would definitely take responsibility) scale was used.

3.2. Results

In Study 2 H1 was again supported via the significant correlation between the personal responsibility scale and the Index of autonomous functioning (r = 0.28, p < .01). The correlation was again significant in both cultural groups (rs = 0.35 and 0.24).

Relevant to H2 and H3 we conducted four different 2 (Task Assigner's Autonomy Support: Present or Absent) \times 3 (Type of Responsibility: Initial Pledge-making, Post-culpability, or None) between-subjects ANOVAs: one analysis for the "fail responsibility accepted" variable, and one analysis for each of the three excuse-making variables (see Table 5). Culture (U.S. vs Russia) was also included as a between-subjects factor in these analyses, but these main effects are again presented separately, under the H4 tests. As before, culture did not moderate the H1 effects and is not discussed further here.

As predicted by H2, the Autonomy support versus Control manipulation boosted fail responsibility acceptance (F(1, 592) = 7.62, p < .01, $\eta_p^2 = 0.013$, 90% CI 0.002–0.032) and reduced usage of the "not my problem" excuse (*F*(1, 592) = 11.53, *p* < .001, $\eta_p^2 = 0.019$, 90% CI 0.005–0.041), as in Studies 1a and 1b. In none of the four ANOVAs was there an omnibus effect of the Responsibility condition, nor were there any significant pairwise effects compared to the baseline condition (all *ps* > .20). Thus, inviting participants to imagine pledging to take responsibility did not make them less prone to making excuses when imagining failure, compared to a condition in which responsibility was not mentioned at all. Again, it may be that personal responsibility can only be manipulated indirectly. Also as before, no significant Autonomy × Responsibility interaction effects emerged (all four *ps* > .20).

H4 predicted that Russian participants would again be lower in measured responsibility. This was not confirmed for the personal responsibility scale (Ms = 3.70 vs 3.78, t(596) = 1.75, d = 0.14, CI = -0.01 to 0.17, p = .08). H4 was again supported in the experimental study: Russian participants were again lower in fail responsibility acceptance, in the experimental task (Ms = 3.36 vs 3.47, t(596) = 2.02, d = 0.17, CI = 0.003-0.22, p < .05).

To test H5, that Russians might be *more* responsible than Americans in at least some circumstances, we conducted a 2 (Sample: U. S. vs Russia) × 3 (Asker: Friend/family, authority/boss, or stranger) × 2 (Way of asking: Requesting vs demanding) MANOVA, with repeated measures on the latter two factors, focused on people's ratings of their willingness to take prospective responsibility (see Table 6). The predicted 3-way interaction emerged (F(2, 590) = 9. 12, p < .001, $\eta_p^2 = 0.030$, 90% CI 0.010–0.054): the only context in which Russians were more willing to accept responsibility than Americans was the one in which a family or close friend requested (rather than demanded) that they do so (M = 4.36 for Russia versus M = 4.22 for the U.S., t(596) = 1.97, d = 0.16, CI = 0.001 to -0.27, p = .05). In the other five cases Russians were all significantly lower, as illustrated in Table 6. The significant main effect of cultural

Table 5

Study 2: cell means for dependent measures in the failure scenario experiment (class project version).

	Freedom condition					
	<u>Autonomy supportive</u> Responsibility condition			<u>Controlling</u> Responsibility condition		
	No Mention	Pledge	<u>Culpable</u>	No Mention	Pledge	<u>Culpable</u>
After imagined failure						
Fail responsibility accepted	3.52(0.67)	3.48(0.63)	3.47(0.63)	3.43(0.58)	3.29(0.74)	3.29(0.62)
"Not my problem"	3.08(0.52)	3.05(0.59)	3.11(0.62)	3.32(0.52)	3.19(0.59)	3.22(0.59)
"Unclear situation"	3.62(0.68)	3.65(0.73)	3.69(0.69	3.81(0.76)	3.63(0.83)	3.68(0.80)
"Not controllable"	3.47(0.61)	3.32(0.58)	3.35(0.53)	3.43(0.58)	3.41(0.62)	3.36(0.60)

Note. There are no significant effects for the Responsibility factor (all ps > .15). There are significant Autonomy-support main effects on Fail Responsibility Accepted, and use of the "Not my Problem" excuse (both ps < .01).

Table 6

Study 2: cell means for "willingness to take responsibility" as a function of relational context (family/friend vs stranger vs authority/boss) and communication style (requesting vs demanding).

	Communication style				
	Request		Demand		
	U.S.	Russian	U.S.	Russian	
	Sample	Sample	Sample	<u>Sample</u>	
Relational context					
Family/friend	4.22(0.89)	4.36(0.81)	4.28(0.91)	3.84(1.07)	
Stranger	3.91(0.99)	3.09(1.20)	3.93(1.03)	2.61(1.23)	
Authority/boss	4.27(0.91)	3.86(1.03)	4.30(0.95)	3.64(1.14)	

Note. All pairwise differences by sample are significant at p < .05. For the bold-faced pair, the mean difference went the opposite direction from the other five pairs.

membership that also emerged in this analysis (Ms = 3.57 vs 4.14, F (1, 597) = 89.7, p < .001, $\eta_p^2 = 0.132$, 90% CI 0.091–0.172) further supports H4, that Russians may be less willing to take responsibility on average. Again, however, the 3-way interaction indicates that Russians may simply be warier; within the right context, they can be more willing to assume responsibility, not less.

3.3. Study 2 Discussion

Study 2 replicated the Study 1a and 1b findings that dispositional autonomy and dispositional responsibility are positively correlated, and that experimentally manipulated autonomy-support increases responsibility-acceptance after failure, whereas manipulated responsibility does not. Study 2 also showed that autonomy support reduced participants' usage of the "not my problem" excuse, suggesting that supporting autonomy enables participants to keep the "self" and "obligation" vertices connected, as represented within the Triangle model of responsibility (Schlenker, 1997). In contrast, imagining having pledged to take responsibility did not have effects. Perhaps it is essential that the participant truly feels the pledge comes from him or her, rather than from the situation, and ironically, perhaps the feeling of personal responsibility can only be "manipulated" by actually providing autonomy. Meanwhile, Study 2 also found further support for H4, concerning lesser willingness to accept responsibility for failure in Russian compared to U.S. participants.

Finally, Study 2 showed that the U.S./Russia difference in personal responsibility is not always found (H5); it depends on the situation. Russians seem wary of assuming responsibility when authorities or strangers ask it, or when it is demanded rather than requested. However, when in-group members request that they take responsibility, they may be more willing to do so than are Americans. This supports a control sensitivity interpretation of the U.S./Russian differences (Radel et al., 2011, 2013), and the idea that Russians, although wary of responsibility, are willing to accept it under the right circumstances.

4. General discussion

This research was motivated by a desire to evaluate the veracity of common truisms such as "freedom and responsibility go together" and "freedom breeds responsibility." The effort was deemed worthwhile because it seemed possible that the opposite is actually true: that providing people with freedom might give them license to deny responsibility, and autonomous individuals might choose to avoid responsibility, thereby keeping their options open. We believed that answering this question might shed new light on a wide variety of important issues, such as "what makes for a well-adapted person?," "how should authorities treat subordinates so that they will act as responsible agents in this interconnected world?, " and "how can people best learn from their mistakes?"

The basic answer we found was clear: freedom and responsibility really *do* go together. First, the personality trait correlations (H1) suggest that dispositional autonomy and dispositional responsibility tend to co-exist and perhaps emerge together. This is consistent with many theories of personality development, according to which people extend their identities further into the social-community context as they mature, experiencing greater personal autonomy at the same time that they take on greater social responsibility, becoming generative mentors and rolemodels (Erikson, 1961; Loevinger, 1976). Of course, longitudinal data will be required to show that these two "faces" of personal causality literally develop in tandem (Leontiev et al., 2011).

Which psychological characteristic, if any, has priority in the relationship? Our thrice-replicated experimental findings (H2 and H3) suggest that causality flows from contextually emphasized autonomy to accepted responsibility, rather than from contextually emphasized responsibility to accepted responsibility. This is consistent with the tenets of Self-determination theory (Deci & Ryan, 1985a, 2000), which emphasizes the importance of authority autonomy-support for facilitating the internalization of social duties and obligations. Apparently, people's willingness

to accept personal responsibility is better facilitated by the message "you can do it your own way" than by the message "you'll get the credit or the blame for your performance." Conversely, being told "you have little freedom to manage the project the way you want" tends to reduce responsibility-acceptance after failure. Of course, these were only scenario studies, which did not put participants into actual situations. Also, our particular autonomy support manipulations, although based on typical SDT manipulations, may not be valid. Thus caution is warranted regarding the true causal picture.

Still, it is noteworthy that neither of our attempts to manipulate responsibility directly (by emphasizing culpability in all studies, and by asking participants to "imagine having pledged responsibility," in Study 2), affected rated responsibility-acceptance and excuse-avoidance. Although it is possible to interpret this by saying that "an effective responsibility manipulation remains to be found," our data instead suggest that such a "manipulation" *has* been found; the way to help people feel responsible may be to provide them with autonomy. Felt responsibility is a phenomenological experience which, perhaps, cannot be manipulated; participants must assent to it, and may do so only if they are treated with sensitivity.

In both studies we were able to compare U.S. and Russian samples with respect to their levels of autonomy and responsibility, testing our hypothesis that Russian participants might be less willing to accept responsibility for failures than U.S. participants (H4). We based this hypothesis on the premise that that freedom and responsibility co-vary, upon the further premise that Russians live in a less free society, and upon past findings that there is more authoritarianism (McFarland et al., 1996) and less autonomy support in Russia (Chirkov & Ryan, 2001). Consistent with H4, some cultural mean differences were found for dispositional responsibility; in two of three tests Russians were lower on the new personal responsibility measure developed for this study, as well as on the existing Shulruf et al. (2007) Auckland measure. Also, Russian participants were less willing to take responsibility for failure in the experimental scenarios: there was a main effect of cultural membership upon fail responsibility accepted, in all three experiments. Again, however, these effects were rather weak and may be affected by scalar invariance issues.

Notably, no mean cultural differences were found for dispositional autonomy, i.e. in the Weinstein, Ryan, et al. (2012b) Index of Autonomous Functioning, despite the fact that Russia is consistently rated lower than the U.S. in World Freedom Indices. Apparently this cultural difference does not translate directly into a personality difference, bringing to mind a famous Russian expression: "In Russia the severity of laws is compensated by the optionality of following them." That is, controlling contexts do not necessarily make controlled individuals. Still, other studies using different measures of dispositional autonomy might yield different results.

Interestingly, Study 2's relational context experiment showed that Russian participants are not *always* less willing to accept responsibility; it may depend on who is asking them to do so, and how they are asking (H5). For centuries, Russia was a society with highly centralized power and a norm of obedience to authority (Smith, 1975); however in the modern era Russians apparently feel more suspicious than in the past, with greater mistrust of official power (Smith, 1990). In line with a control sensitivity perspective, that people whose autonomy is threatened become especially sensitive to procedural justice issues (Radel et al., 2011), the current data indicate that Russians are happy to take responsibility if they are "asked nicely" by "people they trust." Otherwise, they may not have enough control over the situation (Savina, 2013) to warrant accepting any more than the minimum amount of responsibility.

We believe that our results have important implications for self-determination theory and research. As noted earlier, SDT presumes that autonomous individuals are able to behave in more effective and adaptive ways. However, most of the outcomes examined in SDT research have positive valence (i.e., well-being, need-satisfaction, enhanced performance; Ryan et al., 2012). There are relatively few studies showing that psychological autonomy (either in the person or the situation) makes people more willing to experience *negative* feelings, when there is reason to; i.e., when such feelings can help them learn from their mistakes (Legault & Inzlicht, 2013). Our research shows that providing people with the autonomy to choose their behavior does not merely elicit "feel good" decision-making; instead, it helps people be more open to negative consequences which may sometimes result from behavior. Thus these studies provide important new support for the SDT premise that autonomous functioning produces more adaptive and healthy functioning, even if that functioning requires undergoing short-term pain or embarrassment.

4.1. Limitations

These studies have a number of methodological, theoretical, and sampling limitations. Methodological limitations include the use of self-report measures only; the use of experimental designs limited to scenarios and anticipated reactions, rather than actual contexts and resulting behaviors; and our inability to achieve full scalar invariance for some study measures in some samples. The latter fact requires us to interpret our cross-national mean differences in responsibility with some caution, despite the overall consistent pattern (in seven tests of H4 we observed five significant and two "marginally significant" differences in the predicted direction).

From a sampling perspective, the reliance on Missouri samples alone in the U.S. is a clear limitation. Still, as a large Midwestern institution, Missouri well represents the "heartland" or geographical center of the U.S.; concern for representativeness might be greater if only U.S. East coast or West coast samples were employed. Cross-cultural comparability was aided by the fact that the Russian samples were all similar in size, student academic aptitude, and (interior) geographical location to Missouri. A greater limitation may stem from our reliance on only college students; culture is defined not only by national/ethnic background, but also by educational/professional and other backgrounds. Occupational domains such as academia or business impose international cultural standards of their own and tend to substantially (but not totally) level the national/ethnic differences of those involved in these occupational domains (Diener & Oishi, 2004). Thus in the future it would be desirable to sample working adults in the two countries, not just students. It will also be important to sample other cultures, including more traditionally collectivistic cultures than Russian, or other cultures with high levels of social control. This might allow for some additional insights into the differences and similarities found in the present studies.

In addition to correcting these limitations future research could take a more longitudinal perspective. For example, it may be that imposing responsibility *does* increase autonomy in the long-term, if not the short-term; for example, at first children may resent being given chores and other responsibilities, but later, they may realize that this helped them to become more autonomous adults. Such a developmental process may perhaps be hastened to the extent that adults impose such responsibilities in an autonomy-supportive (versus controlling) way (Deci & Ryan, 2000), a suggestion supported by the current experimental results. As another extension, future research could try to identify cases where providing autonomy is *not* beneficial, or does not increase responsibility-taking – e.g., perhaps if the recipient does not (yet) have the skills

to deal with the situation, or if not enough structure is provided, or if no competence feedback is given. Once again, Self-determination theory (Deci & Ryan, 2000; Ryan et al., 2012) provides a wealth of perspectives and findings to consider in this regard.

In conclusion, and in line with the quotes that began this article, it appears that freedom and responsibility are indeed more compatible than conflicting, and that people are willing to take responsibility and even blame, if they are given the autonomy to do tasks their own way. If (as Hugh Downs suggested) the price of freedom is responsibility, then it is a burden which people are willing or even glad to bear.

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Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.jrp.2017.11.007.

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