

# Walking the talk: Value importance, value enactment, and well-being

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**Abstract** Prior research on intrinsic versus extrinsic values has focused on the comparative *importance* subjects assign to the two types of values, showing that relative intrinsic versus extrinsic value orientation (RIEVO) predicts higher or increased well-being. In two studies, we show that rated *action taken* regarding the two types of values is just as essential to study. Support was found for four hypotheses: (1) there was a significant behavior/importance gap, such that participants “walked” (acted on values) less than they “talked” (endorsed those values); (2) this was especially true for intrinsic values, an interaction suggesting that the intrinsic ideals of personal growth, community, and connection often receive only lip service; (3) the “walk” (behavior ratings) measure of RIEVO subsumed the “talk” (importance ratings) RIEVO measure’s effects on well-being outcomes, suggesting that researchers interested in predicting well-being from values should perhaps focus on rated value enactment, not value importance; and (4) participants with higher meaning in life, lower search for meaning, more self-concordance at work, and greater chronological age evidenced more consistency between their talking and their walking.

**Keywords** Values · Self-determination theory · Well-being

## Introduction

Values are the guiding principles that people use in organizing their lives (Rokeach 1973; Schwartz 1992)—the ultimate ends that people think are important. In recent decades self-determination theory (SDT; Deci and Ryan 1985, 2000) researchers have proposed a model of values (Kasser 2002; Kasser and Ryan 1993, 1996) which relies on a distinction between “intrinsic” values such as personal growth, serving one’s community, and having fulfilling relationships with others, and “extrinsic” values, such as achieving monetary success, having status and fame, and being beautiful or attractive (Kasser and Ryan 1993, 1996; Kasser et al. 2004; Sheldon and Kasser 2008). Factor analyses (Kasser and Ryan 1993, 1996) have supported the basic distinction between the two types of value, and Grouzet et al. (2005) showed that an “intrinsic versus extrinsic” distinction formed one axis of a circumplex model of values, the other axis being formed by a “self-transcendent versus physical” axis (not considered in the current studies). To compare peoples’ value systems as a whole, researchers commonly compute a “relative intrinsic versus extrinsic value orientation” (RIEVO) score by subtracting extrinsic from intrinsic value scores (Kasser and Ryan 1993; Kasser 2002). This summative approach is employed because extrinsic values are not considered negative in themselves, but are thought to become problematic when they become more prominent than intrinsic values in a person’s overall value system.

The RIEVO construct has been a mainstay within the SDT literature for more than 20 years (Kasser and Ryan 1993), and remains actively researched to this day. For example, Sebire et al. (2009) recently examined the effects of RIEVO in the domain of sports and exercise; Vans-teenkiste et al. (2007) applied RIEVO in the work domain;

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and Thøgersen-Ntoumani et al. (2010) examined RIEVO in the health domain. Given this activity, researchers have begun to identify “goal content theory” as a fifth mini-theory within SDT, along with the four prior mini-theories of cognitive evaluation theory, organismic integration theory, causality orientations theory, and basic needs theory (Gunnell et al. 2014).

The research to date shows that RIEVO predicts a host of positive mental health outcomes including greater positive affect, higher observer-rated adjustment, greater life-satisfaction, lower depression and anxiety, and more; conversely, people who attach too much importance to extrinsic values exhibit a host of mental health decrements (for an earlier review, see Kasser 2002). Such effects also emerge longitudinally. For example, Niemiec et al. (2009) and Sheldon et al. (2004) showed that a strong extrinsic value orientation at the time of college graduation predicted mental health decrements a year later.

These studies show that what people *say* (or believe) is important to them (called “talking” herein) matters for their mental health. But what about what people actually *do*—the values they actually act upon (“walking”)? Presumably these are related; people should tend to take action in order to approach what they believe is important. This would exemplify a top-down regulatory process in which higher-level goal-principles and ideal self-images give rise to lower-level plans and sequences designed to reduce discrepancies and move the person towards those higher-level ideals (Carver and Scheier 1981, 1998). However, it is easy to think of reasons why such action may not occur. These reasons might include social desirability and impression management motives, which inflate or otherwise bias endorsements of specific values or types of values (Paulhus 1984), relative to actual behavior; situational or socio-cultural forces that discourage or disrupt a person’s ability to pursue volitions and intentions (Deci and Ryan 1987); the gap between explicit and implicit motivations, i.e. the fact that the motives people attribute to themselves may not be the same ones they behaviorally prefer (Schultheiss 2008); and the well-known phenomenon of attitude/behavior inconsistency (Aronson 1999), in which people do not follow through to take action in support of their stated attitudes.

A few studies have examined other dimensions of intrinsic versus extrinsic values besides their rated importance. Kasser and Ryan (1993, 1996) focused on the subjective *likelihood* of attaining aspirations, in addition to the rated importance of attaining aspirations. They found that RIEVO for likelihood ratings was associated with well-being with effect sizes approximately equivalent to the effect sizes of RIEVO for importance ratings. However, these investigators did not directly compare these two types of effects, to establish which values measure was the stronger or more proximal predictor of

well-being. Kasser and Ryan (2000) examined the degree to which aspirations were already *attained*, as well as examining their rated importance in the future. They found RIEVO attainment was a somewhat stronger predictor of well-being than RIEVO importance. Similarly, Van Hiel and Vans-teenkiste (2009) examined the relative *past attainment* of intrinsic versus extrinsic values, finding that RIEVO predicted well-being and ego-integrity in the very old. Sheldon and Kasser (1998) and Sheldon et al. (2010b) examined the effects of retrospective ratings of *recent progress* in pursuing intrinsic versus extrinsic personal goals, finding that goal progress predicted enhanced well-being, especially in the case of intrinsic goals.

However as previously stated, the current research addresses a different dimension of aspirations; namely, the degree to which the person reports *taking action* to pursue different values. Taking action (“walking”) is logically related to the other dimensions of aspirations that were discussed above: positive expectancies (i.e. a high perceived likelihood of succeeding in action) doubtless affects the taking of action, and taking action very likely affects one’s ability to make progress towards, or to attain, the aspiration. However we believed that value-relevant action is a crucial missing piece of the puzzle to study because it represents the actual *behavior* that presumably must occur in the time between *saying X* is an important goal, and *achieving X*. Assessing value-relevant action (in addition to value importance) allows researchers to address the issues of attitude/behavior inconsistency and self-deception that were discussed above. To what extent do people actually take action to bring about what they say is important? Assessing value-relevant action also allows researchers to compare the effects of walking versus talking upon well-being. Is it more important to aspire to the good, or act for the good? Finally, assessing value-relevant action allows researchers to examine what happens when there are discrepancies—when “walking” does not match “talking,” do people suffer? Are some types of people less discrepant or more consistent than others?

In the current studies we therefore endeavored to assess both the rated importance of different values to participants, and, the extent to which participants viewed themselves as actually working towards each value. Notably, Bardi and Schwartz (2003) also studied the degree of consistency between values and behavior. However, they focused on a different model of values (namely, the Schwartz circumplex model; 1992), and used different sets of items to assess values and to assess behaviors. In contrast, we used the same set of items to assess both walking and talking, merely varying the stem of the questions. Thus, our research aims and methods were somewhat different.

We tested four primary hypotheses. Our first hypothesis was that there would be a mean difference such that

“talking” scores would be greater than “walking” scores, regardless of the type of value (intrinsic or extrinsic). Importance ratings are aspirations, and people might well aspire to more than they can objectively do in the present. It may also be the case that people talk a better game than they walk, inflating their importance ratings while being more honest or accurate in their action ratings.

Our second hypothesis was that there would be an interaction between value type (intrinsic or extrinsic) and type of rating (walking or talking), such that the gap between walking and talking would be significantly larger for intrinsic values than for extrinsic values. Such a finding would support the notion that importance ratings might be inflated in a socially desirable direction. However, this finding might simply suggest that people’s ideal aspirations, unconstrained by reality, legitimately tend to be more intrinsic than the person can actually manage at present. In either case, such an interaction would suggest that reality intrudes to a greater extent on the pursuit of intrinsic than extrinsic values. Apportioning one’s time is a zero-sum game (Sheldon et al. 2010a), and intrinsic pursuits can be readily displaced, or “crowded out,” by extrinsic pursuits (Frey 2008).

Our third hypothesis was that the RIEVO of rated action will better predict well-being than the RIEVO of rated importance. It is now well-established that the type of values people endorse matters for their well-being, although these effects are not always strong. But if intrinsic values are indeed healthier and more happiness-promoting than extrinsic values because of the ongoing need-satisfying experiences their enactment provides (Kasser 2002; Niemiec et al. 2009), then the values people *work* toward should be more impactful than the values they merely *talk* about. Of course, an alternative interpretation of the same finding would be that a mediational relationship exists, a top-down regulatory process wherein endorsed values produce greater value action, which in turn produces well-being. However, because the items are the same for the “walking” and “talking” measures, we do not believe that such a mediational interpretation would be very informative from a causal process perspective. Still, finding support for Hypothesis 3 would suggest that researchers seeking the strongest predictor of well-being should perhaps measure values enactment instead of values endorsement.

Our fourth hypothesis addressed consistency (or lack of it) between talking and walking. What psychological constructs are associated with greater consistency, or with greater inconsistency? We focused on the two aggregate RIEVO measures because RIEVO is the summary variable that has received the most research attention in the past. Our general hypothesis was that walking/talking consistency should be associated with indicators of greater maturity and positive functioning, construed in many possible ways. In Study 1 we examined the Meaning in Life scale (MIL;

Steger et al. 2006). The MIL has two subscales: presence of meaning (POM) and search for meaning (SFM). We hypothesized that POM would predict consistency between walking and talking, whereas SFM might predict inconsistency between walking and talking. Those who feel their life is already meaningful are likely motivated to turn their values into action, or perhaps, are already turning their values into action. In contrast, those searching for meaning may feel less committed to their current stated values, or may be trying out behaviors inconsistent with those values, perhaps in a search for more satisfaction or better values.

In sum, in this research we asked participants to rate how much they *act* upon various intrinsic and extrinsic and intrinsic values (a novel assessment approach), as well as how *important* those different values are to them (the traditional assessment approach). In two studies, involving two student samples and one working adult sample, we tested four hypotheses concerning the differences between, and the different effects of, these two types of ratings. Our hypotheses were that (1) Talking scores would be higher than Walking scores; that (2) Talking scores would be greater than Walking scores especially in the case of intrinsic values; that (3) Walking RIEVO would better predict well-being than Talking RIEVO; and that (4) measures of personality maturity and positive functioning would be associated with greater consistency between walking and talking.

## Study 1

### Method

#### *Participants and procedure*

Participants were 1992 introductory psychology students at the University of Missouri (828 Men, 1,164 Women; 84 % Caucasian) who participated in order to help fulfill a research participation requirement. They completed the study measures via an on-line, password-protected survey.

#### *Measures*

During the survey participants read, “The questions below ask you about aspirations you may have for the future. For each question, select a response that indicates how important it is to you that the goal be attained in the future.” A 1 (not at all) to 3 (somewhat) to 5 (very) scale was provided for the six-item short form (Sheldon et al. 2003; Sheldon and Kasser 2008; Sheldon et al. 2011) of the Aspirations Index (Kasser and Ryan 1993, 1996, 2000). The three extrinsic value items were “projecting an appealing and attractive image,” “achieving affluence and

financial success,” and “being known and admired by many people.” The three intrinsic value items were “helping those who need help,” “having close personal relationships”; “feeling close to various people” and “attaining self-understanding and personal growth.” A principal components analysis revealed the expected two component structure, with each item loading at least .67 on the expected factor and no more than .25 on the other factor. Aggregate three-item intrinsic and extrinsic valuing (“talking”) scores were computed to test hypotheses 1 and 2 (alphas = .62 and .63, respectively), and an aggregate “talking RIEVO” score was computed to test Hypothesis 3, by subtracting the extrinsic ratings from the intrinsic ratings (alpha = .78, computed after subtracting the mean of the six items from all six items and reversing the extrinsic ratings).

Next participants read, “The questions below again ask you about various goals or aspirations. For each question, select a response that indicates how much you *actually work on* that goal in your life. Regardless of how important you said the goals were, to what extent do you find yourself trying to make each goal occur?” Thus, we asked participants to try to ignore their prior importance ratings to tell us what they actually do. The same six value items were presented, with a rating scale ranging from 1 (not at all) to 3 (somewhat) to 5 (very). Once again a two component structure emerged for these ratings (no expected loadings <.60, no cross-loadings >.28), and aggregate intrinsic and extrinsic action (“walking” or action) scores and an aggregate “walking RIEVO” were computed as above (alphas = .57, .63, and .72, respectively). Notably, the two RIEVO scores correlated .70 ( $p < .001$ ), indicating considerable agreement between walking and talking, overall.

Later in the survey participants completed the 12 item depression subscale and the 13 item anxiety subscale from the short form of the Mood and Anxiety Symptoms Questionnaire (MASQ; Watson et al. 1995). Participants were asked to rate “how much you have felt or experienced things this way during the past week, including today,” using a 1 (not at all) to 5 (extremely) scale. Aggregate depression (alpha = .92) and anxiety (alpha = .86) scores were formed by averaging the relevant items. Participants also completed the ten item Meaning in Life scale (MIL; Steger et al. 2006), from which five item POM (alpha = .86) and SFM (alpha = .87) subscales were computed (example items: “my life has a clear sense of purpose” and “I am always looking to find my life’s purpose,” respectively).

## Results

We conducted a 2 (Type of value: Intrinsic vs. Extrinsic)  $\times$  2 (Frame: Walking vs. Talking) MANOVA with

**Table 1** Study 1: mean value scores split by value type (intrinsic vs. extrinsic) and frame (talking vs. walking)

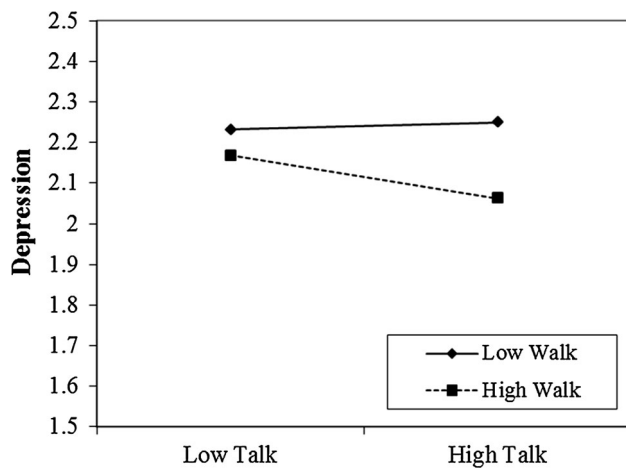
	Value type	
	Extrinsic	Intrinsic
<i>Frame</i>		
Talking	3.89	4.49
Walking	3.62	4.08

All means significantly different from each other at  $p < .01$ . See text for description of MANOVA results

repeated measures on both factors. Table 1 presents the means by condition. Consistent with much past research (Kasser 2002), there was a significant main effect of value type, with intrinsic values being more strongly endorsed overall [ $F(1,1991) = 955.6$ ,  $p < .001$ ,  $\eta^2 = .62$ ]. More importantly, and supporting Hypothesis 1, there was also a significant main effect of Talking versus Walking [ $F(1,1991) = 789.6$ ,  $p < .001$ ,  $\eta^2 = .26$ ]; ratings of acting upon values were generally lower than ratings of value importance. Supporting Hypothesis 2, there was a small but significant interaction between the two factors [ $F(1,1991) = 86.5$ ,  $p < .001$ ,  $\eta^2 = .01$ ]. This emerged because the shortfall between endorsing intrinsic values and actually working on intrinsic values ( $-.41$ ) was larger than the gap between endorsing extrinsic values and actually working on extrinsic values ( $-.27$ ). For the reader’s information, women gave greater mean value ratings overall [ $F(1,1979) = 40.86$ ,  $p < .01$ ], qualified by a gender by content interaction [ $F(1,1979) = 50.20$ ,  $p < .01$ ], such that mainly, women especially endorsed intrinsic values more than men. However, there was no gender by walking/talking interaction and no three-way interaction, thus the theoretically salient patterns were unaffected by gender.

To test Hypothesis 3 we conducted two regressions, one for anxiety and one for depression, in which the Talking RIEVO variable was entered at Step 1, the Walking RIEVO variable was entered at Step 2, and the multiplicative product of the two (standardized) variables was entered at Step 3. These analyses allowed us to first test for the typical effect of the Talking RIEVO predictor upon the well-being indicators, and then to examine to what extent the Walking RIEVO predictor supercedes, or accounts for, these effects. The interaction test at Step 3 was exploratory, suggested by an earlier reviewer of this article. This test sought to examine whether well-being is especially impacted if the two RIEVO scores match. Might participants benefit most if they both walk and talk intrinsic (relative to extrinsic) values?

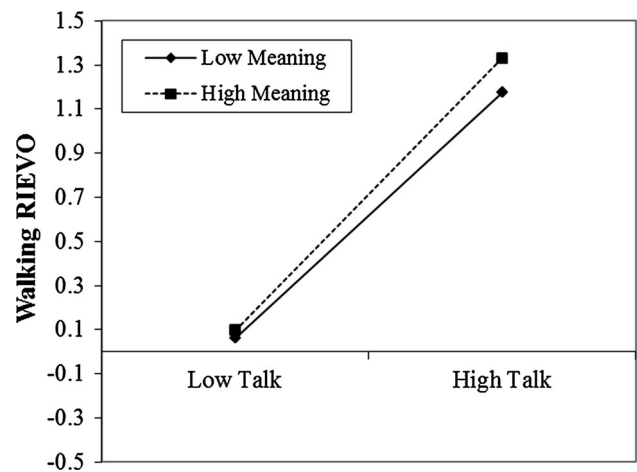
At Step 1 Talking RIEVO was a significant predictor of lower depression ( $\beta = -.08$ ,  $p < .01$ ) and anxiety ( $\beta = -.05$ ,  $p < .05$ ). At Step 2 Walking RIEVO was significant



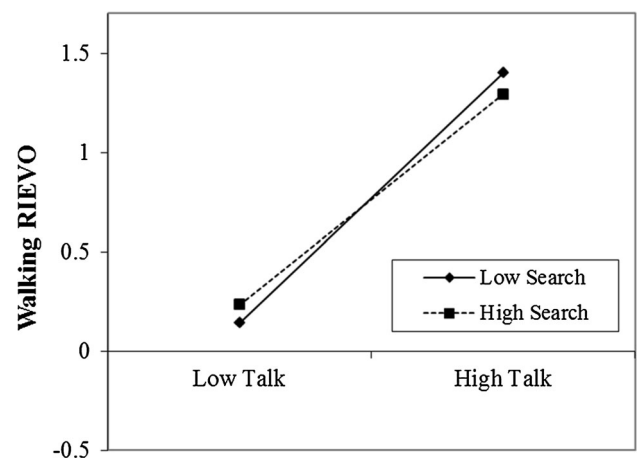
**Fig. 1** Study 1: depression as a function of both Walking and Talking RIEVO measures

in both analyses ( $\beta = -.08, p < .01$ , in both cases) and Talking RIEVO became non-significant (both  $ps > .40$ ). At Step 3 the interaction between the two variables was significant and negative for depression ( $\beta = -.06, p < .05; R^2 = .012$ ) but not for anxiety ( $\beta = -.02, ns; R^2 = .008$ ). Figure 1 plots the interaction for depression for participants who were one standard deviation above or below the mean. As can be seen, significantly lower depression scores were observed for participants who both walked and talked intrinsic (relative to extrinsic) values. This was essentially the only point that differed from the other three points, suggesting that it takes a combination of both walking and talking intrinsic values to get benefit. We will evaluate the replicability of this unpredicted pattern in Study 2.

Hypothesis 4 concerned POM and SFM as predictors of consistency between walking and talking (Steger et al. 2006). To test this we standardized the variables and computed two product interaction terms: POM  $\times$  Talk RIEVO and SFM  $\times$  Talk RIEVO. We then conducted two regressions predicting Walk RIEVO from one or the other meaning variable, Talk RIEVO, and the relevant interaction product term, entered in two steps. A significant positive interaction indicates that more of the moderator variable is associated with greater consistency between walking and talking, and a significant negative interaction indicates that the more of the moderator is associated with greater inconsistency between walking and talking. For the POM analysis, at step 1 POM significantly predicted Walk RIEVO ( $\beta = .06, p < .01$ ) as did Talk RIEVO ( $\beta = .70, p < .01$ ); at step 2, the interaction was significant and positive as hypothesized ( $\beta = .04, p < .001; \Delta R^2 = .01, total R^2 = .496$ ). For the SFM analysis, at step 1 SFM had no main effect on Walk RIEVO ( $\beta = -.01, p < .001$ ), although Talk RIEVO did ( $\beta = .70, p < .01$ ); more



**Fig. 2** Study 1: walking RIEVO as a function of Talking RIEVO and POM



**Fig. 3** Study 1: walking RIEVO as a function of Talking RIEVO and SFM

importantly, the interaction was significant and negative at step 2, as expected ( $\beta = -.06, \Delta R^2 = .04; total R^2 = .497$ ). The two effects both remained significant when they were both included within a single model. Figures 2 and 3 provide graphs of the two interactions, derived from the separate analyses just described.

Discussion

In Study 1 we administered the short aspirations measure twice, once in the usual way (measuring subjects' beliefs about what is important—"talking"), and also adding a new measure of what participants actually work on—"walking." The study provided initial support for our four hypotheses. We found that participants generally walked less than they talked (Hypothesis 1) and that this gap was larger for intrinsic than for extrinsic values (Hypothesis 2).

This suggests a relative failure, whether for lack of time, aspirational overreach, a touch of hypocrisy, or other reasons, to pursue what participants believe to be most important.

We also found support for Hypothesis 3, in that the walking RIEVO measure subsumed the effects of the talking RIEVO measure on anxiety and depression. This is consistent with self-regulation research (Carver and Scheier 1990), as those taking action to make progress towards their goals typically derive well-being benefits (Brunstein 1993). The current findings go further, however, in suggesting that value-action may account for the traditional association between value importance and well-being. However we did not test mediation because the data were only cross-sectional and because the “walking” measure was not a true measure of behaviors separate from values, but rather, a restatement of values themselves. We also found, in an exploratory analysis, that the combination of high talking RIEVO and high walking RIEVO was associated with the lowest depression scores. We evaluate the robustness of this finding in later studies. A final finding of Study 1, supporting Hypothesis 4, was that “walking” was more consistent with “talking” if participants were high in “presence of meaning” (Steger et al. 2006) and less consistent if participants were high in “search for meaning.” Those who already feel life is meaningful are actually doing what they think is important; those searching for meaning evidence less such consistency, perhaps because they are unsatisfied with their current values, or are trying out different behaviors.

## Study 2

In Study 2 we sought to replicate the Study 1 findings using a large sample of working adults. This would test whether the effects were specific to students, or if they might generalize to adults of many different ages. Specifically, we examined a sample of 2,975 working lawyers with widely diverse ages and income levels. We used the same value measures in this sample, expecting Hypotheses 1 and 2 to again receive support. In addition to measuring depression in this sample (as in Study 1), we also added positive affect as a positive well-being indicator. We expected these measures to support Hypothesis 3, with the walking RIEVO measure predicting higher positive affect as well as lower depression. We also tested whether the walking RIEVO  $\times$  talking RIEVO interaction effect on depression would replicate and whether it would extend, in a reverse direction, to positive affect.

In Study 2 we also explored further predictors for the size of the discrepancy between talking and walking (Hypothesis 4). We thought that participant age might play

a role, as more mature participants, through normative personality development (Costa et al. 2000; Roberts et al. 2013), may well achieve greater consistency between their goals and their behaviors (Sheldon and Kasser 2001; Sheldon 2009). We also examined participant job motivation. If a lawyer works at her job for self-concordant (Sheldon and Elliot 1999; Sheldon 2004) or internalized (Deci and Ryan 2000) reasons, is she better able to “walk,” as well as “talk,” intrinsic (vs. extrinsic) values? The self-concordance construct is presumed to address the “fit” or integration between a people’s goals and their deeper needs and personality characteristics (Sheldon 2004), and thus people higher in self-concordance should be able to evidence a smaller gap between what they say is important and what they actually do.

## Method

### *Participants and procedure*

Participants were 2,975 working lawyers from a mid-western and a northeastern state in the U.S. They were contacted through their respective bar associations, invited to participate in the study, and offered continuing education credit as an incentive. After completing the on-line survey participants could go to a web-site to register for Continuing Legal Education credit; most participants availed themselves of this opportunity. The sample consisted of 1,634 men and 1,235 women (106 did not supply gender data), who were working in a wide variety of legal settings and substantive practice areas. Eighty-three percent of the sample was Caucasian; the mean age of the sample was 47.3 years ( $SD = 13.3$ ; range 23–96). The mean yearly income, measured on a scale ranging from 1 (less than \$30,000 per year) to 16 (more than \$2,000,000 per year) was 6.5, corresponding to about \$90,000 per year.

### *Measures*

The same 12 value items were administered in Study 2 as in Study 1, with the same instructions and rating scales. Once again a clean two-component structure emerged for each set of six ratings, and the same summary variables were computed as in Study 1 (alphas ranging from .54 to .84). The walking and talking RIEVO scores correlated .71 ( $p < .001$ ) in this dataset, again indicating considerable agreement between walking and talking, but also, some room for divergence.

We measured positive affect using the 10 item scale from the Positive Affect Negative Affect Schedule (PANAS; Watson et al. 1988); participants rated how much each item (e.g. interested, enthusiastic, proud) characterized their experience “in the past 2 months or so,” using a

1 (not at all) to 5 (very much) scale. The ten ratings were averaged ( $\alpha = .91$ ). We measured depression using the six item Depression subscale of the Brief Symptom Inventory (Derogatis and Melisaratos 1983), also with respect to the last 2 months ( $\alpha = .88$ ). Example items include “feeling blue” and “feeling no interest in things;” the six items were averaged.

To measure self-concordant job motivation we used four items designed to assess the “perceived locus of causality” of behavior (Ryan and Connell 1989; Sheldon and Elliot 1999; Sheldon 2004). Participants read, “People do things for many different reasons. For your job in the law, please indicate how strongly each of the following reasons describes your motivation for performing this job.” External motivation was assessed by the item “You are in this job because somebody else wants you to, or thinks you should do this;” introjected motivation was assessed by the item, “You are in this job because you would feel ashamed, guilty, or anxious if you weren’t;” identified motivation was assessed by the item, “You are in this job because you really believe that it’s an important thing to do;” and intrinsic motivation was assessed by the item, “You are in this job because of the enjoyment or stimulation it provides you.” Following much other research with these items and this construct, and based on the notion of a continuum of motivational internalization (Ryan and Connell 1989), a self-concordant job motivation score was computed by summing the intrinsic and identified ratings and subtracting the external and introjected ratings (Sheldon 2004;  $\alpha = .68$ ). This measure thus reflects the level of felt autonomy, rather than felt external imposition, of participants’ job motivation.

## Results

Table 2 presents the means from a 2 (Type of value: Intrinsic vs. Extrinsic)  $\times$  2 (Frame: Walking vs. Talking) MANOVA with repeated measures on both factors. Again consistent with past research (Kasser 2002), there was a significant main effect of value type, with intrinsic values more strongly endorsed overall [ $F(1,2974) = 2,801.8, p < .001; \eta^2 = .795$ ]. Supporting Hypothesis 1, the analysis also revealed a significant main effect of Walking versus Talking [ $F(1,2974) = 1,923.5, p < .001, \eta^2 = .19$ ]; participants again reported less effort towards values compared to their endorsement of values. Supporting Hypothesis 2, there was a significant interaction between the two factors [ $F(1,2974) = 187.1, p < .001, \eta^2 = .012$ ]. This emerged because the gap between endorsing intrinsic values and working on intrinsic values ( $-.48$ ) was again larger than the gap between endorsing extrinsic values and working on extrinsic values ( $-.30$ ). For the reader’s information, and replicating Study 1 findings, women gave

**Table 2** Study 2: mean value scores split by value type (intrinsic vs. extrinsic) and frame (talking vs. walking)

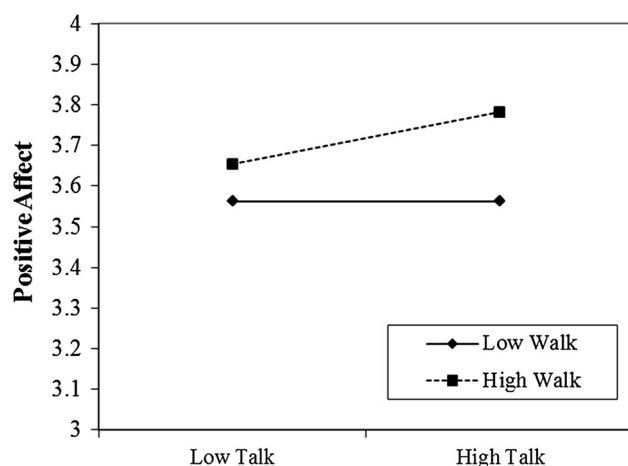
	Value type	
	Extrinsic	Intrinsic
<i>Frame</i>		
Talking	3.22	4.12
Walking	2.92	3.63

All means significantly different from each other at  $p < .01$ . See text for description of MANOVA results

higher value ratings overall [ $F(1,2,365) = 23.16, p < .01$ ], qualified by a gender by content interaction [ $F(1,2,365) = 100.75, p < .01$ ], such that mainly, women especially endorsed intrinsic values more than men. Again, there was no significant gender  $\times$  Walking/talking interaction, and no three way interaction involving gender.

To test Hypothesis 3 we conducted two regressions paralleling those of Study 1, one for positive affect and one for depression, in which the Talking RIEVO variable was entered at Step 1, the Walking RIEVO variable was entered at Step 2, and the multiplicative product of the two standardized variables was entered at Step 3. At Step 1 Talking RIEVO was a significant predictor of higher positive affect ( $\beta = .04, p < .05$ ) and lower depression ( $\beta = -.03, p < .08$ ), although the effects were weaker than usually observed with this measure. At Step 2 Walking RIEVO was significant in both analyses ( $\beta = .11, p < .01$ , and  $-.07, p < .01$ , respectively) and Talking RIEVO became non-significant. At Step 3 the interaction between the two RIEVO scores was significant and positive for positive affect ( $\beta = .10, p < .01; \Delta R^2 = .01$ ) and significant and negative for depression ( $\beta = -.06, p < .05; \Delta R^2 = .01$ ). The form of the interaction for depression was very similar to that depicted in Fig. 1. The form of the interaction for positive affect is depicted in Fig. 4. As can be seen, the greatest positive affect scores occurred for participants high in both the walking and talking RIEVO measures. Thus, it again appears that the combination of high scores on both RIEVO variables is most salubrious, presumably because of a more harmonious mode of personality functioning that is enabled by both “congruence” (orienting towards intrinsic values) and “coherence” (having consistency between values and goals; Sheldon and Kasser 1995).

Finally, we investigated the consistency between the walking RIEVO and talking RIEVO measures, as a function of participant age and self-concordant job motivation (Hypothesis 4). We conducted regression analyses similar to those conducted in Study 1, in which Walk RIEVO was predicted from Talk RIEVO, participant self-concordant motivation or participant age, and a product variable



**Fig. 4** Study 2: positive affect as a function of both Walking and Talking RIEVO measures

computed by multiplying Talk RIEVO by the relevant standardized moderator variable (self-concordant motivation or age). We predicted two significant positive interactions, such that Talk RIEVO is more highly associated with Walk RIEVO for older, self-concordant individuals. For the self-concordant motivation analysis, at step 1 self-concordant motivation significantly predicted Walk RIEVO ( $\beta = .077, p < .01$ ) as did Talk RIEVO ( $\beta = .70, p < .01$ ); at step 2, the interaction was significant and positive ( $\beta = .047, p < .001; \Delta R^2 = .002, \text{ total } R^2 = .508$ ). For the age analysis, at step 1 age had a significant main effect on Walk RIEVO ( $\beta = .062, p < .01$ ), as did Talk RIEVO ( $\beta = .70, p < .01$ ); more importantly, the interaction was significant and positive at step 2, as expected ( $\beta = .072, \Delta R^2 = .005; \text{ total } R^2 = .509$ ). These analyses suggest that older people are and self-concordant people are better able to be consistent in how much they walk, as well as talk, intrinsic (vs. extrinsic) values.

#### Brief discussion

Study 2 replicated all of the findings of Study 1, showing that the same patterns appear in a sample of working adults as appeared in a sample of college students. Once again, “walking” was weaker than “talking” (Hypothesis 1), and this discrepancy was more pronounced for intrinsic than for extrinsic values (Hypothesis 2). Also, despite their large inter-correlation, the walking RIEVO measure subsumed the associations of the talking RIEVO measure with both depression and positive affect (Hypothesis 3). Replicating and extending the supplementary analysis of Study 1, significant interactions emerged such that participants high in both RIEVO measures were highest in positive affect and lowest in depression, and vice versa for participants low in

both RIEVO measures. Again supporting Hypothesis 4, that consistency was associated with greater maturity and positive functioning, those with the greatest consistency between “talking” and “walking” intrinsic versus extrinsic values were the older lawyers, with more self-concordant work motivation.

#### General discussion

In this research we have introduced a new way of conceptualizing and measuring value-endorsement, to test our hypothesis that “walking” (claiming to take action to enact) intrinsic rather than extrinsic values may be more powerful than “talking” (merely claiming to endorse) intrinsic rather than extrinsic values. Our focus on whether people are acting to move towards values fills a gap in the extant literature, which has so far examined only the rated importance, likelihood, and attainment of aspirations. When taken in conjunction with conventional value-importance data, value-action data also provide a potentially useful window into issues as diverse as attitude/behavior consistency, integrity versus hypocrisy, implicit versus explicit motivational congruence, and the effectiveness of top-down self-regulation.

We found consistent support for four primary hypotheses. First, people tended to “talk” a stronger game than they “walked,” in that their importance ratings were consistently higher than their action ratings. This might be viewed as evidence of hypocrisy, in which people do not actually follow through on their stated commitments. More likely, this difference simply reflects the difference between the energy and opportunities one has to act in the present, versus the things one believes are ultimately important even if one cannot work on all of those things now. Time and energy are limited resources, and aspiring for more in the future than what one is currently doing is not necessarily a bad thing—it may even be an engine of growth and progress.

More suggestive of hypocrisy, perhaps, is the support we found for our second hypothesis: namely, the gap between “talking” and “walking” was larger for intrinsic values than it was for extrinsic values. When people fall short of their ideal aspirations, it apparently occurs to a greater extent for the healthiest and most growth-promoting types of values, namely, intrinsic aspirations (Kasser 2002). However even this finding may not reflect true hypocrisy— aspiring to a more intrinsic future than one is currently working towards may not be a bad thing. Again, intrinsic pursuits may often get “crowded out” by the exigencies of everyday living (Frey 2008; Deci and Ryan 2000), but as long as the person at least remembers them as future priorities, this may be beneficial and desirable.



We also had further data relevant to these perplexing questions; namely, our findings on the predictors of consistency between talking and walking (Hypothesis 4). Study 1 found that participants higher in meaning in life were more consistent, and that participants higher in SFM were less consistent. Study 2 found that older and more self-concordant lawyers were more consistent. These findings suggest that greater consistency between “walking” and “talking” may reflect greater self-insight on the part of some respondents; individuals who were more mature, motivationally self-congruent, and whose lives felt more meaningful, evidenced greater consistency between talking and walking. Such individuals may be more attentive both to the desires they have and the behaviors they enact, and thus may be better able to align their behaviors with their desires.

Our third hypothesis addressed the question: “which measure of RIEVO—the conventional one based on talking, or the new one based on walking—would best predict well-being?” Here, the results were clear: The “walking” measure consistently subsumed the effects of the “talking” measure, indicating that the walking measure is the more reliable or robust predictor of well-being. However, a different interpretation of these findings is that behavior simply carries the effects of aspirations to outcomes; from this perspective, “walking” may simply explain the effects of “talking,” just as we would expect from a control-theory or self-regulatory perspective (Carver and Scheier 1981, 1998; Baumeister and Vohs 2012), in which future goals prompt present action in service of those goals. We recommend that researchers collect both value-importance data and value-action data if they can, but if they are primarily interested in predicting well-being with one measurement approach, they may prefer the “walking” version. Apparently, happiness is more strongly associated with *doing* the “right” things than just *saying* the right things are important.

A final, unpredicted finding, but one which emerged in both Study 1 and Study 2, was that RIEVO “talking” and “walking” interacted with each other to predict some forms of well-being. Specifically, when a participant both strongly endorsed intrinsic versus extrinsic values, and strongly acted upon intrinsic versus extrinsic values, that participant evidenced the highest level of positive affect and lowest level of depression. In fact, as illustrated in Figs. 1 and 4, this “consistently intrinsic” cell stood out from the other three cells. One interpretation of this finding is that special benefits accrue to those who both espouse intrinsic values, and actually follow through with them. These participants are both “congruent” (in espousing organismically beneficial values) and “coherent” (in having a top-down action system that is regulated by those values; Sheldon and Kasser 1995). The findings also show, in a new way, that value/behavior consistency is beneficial to mental health, or at least,

symptomatic of an integrated state of functioning which is related to mental health (Sheldon 2004).

These studies have a number of limitations, including reliance on Western samples and self-report methodologies, the absence of longitudinal data concerning the effects of walking and talking values upon well-being (Niemiec et al. 2009), and the relatively weak effects of values upon well-being ( $\beta$ s < .10), which may be due to the shortened six-item values measures used. Future studies could rectify these limitations. Furthermore, future studies could more carefully examine the specific behaviors associated with various values. For example, Bardi and Schwartz (2003), working with the Schwartz (1992) circumplex model of values, developed a separate measure of concrete value-relevant behaviors use, and found lower general correspondence between “talking” and “walking” than was found in the current studies. This is likely because our walk and talk items were identical, except for the substitution of “what do you actually work on?” for “what do you think is important?” Bardi and Schwartz (2003) also found greater convergence between walking and talking for some values than for others. They suggested that the degree of convergence was sometimes obscured by stronger social norms for some value-relevant behaviors compared other value-relevant behaviors. These normative issues need to be addressed from the perspective of SDT’s goal-contents mini-theory as well.

In conclusion, we hope that readers agree that despite the considerable overlap between peoples’ estimations of how much they “walk” versus “talk” healthy values, there can be important variations in this overlap, which are meaningful both within-subjects and between-subjects. We have argued that such data can inform researchers regarding the meaning of integrated personality functioning, and also, what it means to function with personal integrity.

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