Exchanging The Relation Between Work Values, Basic Need Satisfaction, Job
Satisfaction and Well-Being: A Self-Determination Approach

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Abstract

Intrinsically oriented employees focus on work values congruent with inherent growth tendencies, whereas extrinsically oriented employees attach importance to being financially successful, getting rewards and appraisal from others and exerting control and power over others. Organismic theories, such as self-determination theory (Deci & Ryan, 1985, 2000) suggest that being predominantly intrinsically work oriented will be associated with higher job well-being, because the pursuit of intrinsic work values is more likely to provide satisfaction of the basic needs for autonomy, competence and relatedness. Study 1 (N = 896) shows that adopting an intrinsic work value orientation negatively predicts life happiness and job well-being, even among people coming from low socio-economic classes. Study 2 (N = 85) indicates that intrinsic work values positively predict job vitality, job satisfaction and job commitment, and negatively relates to burn-out, and that these relationships are mediated by basic need satisfaction at work.
Several work and organizational researchers (e.g., Ros, Schwartz, & Surkiss, 1999) have argued that employed people's work values can strongly differ in nature. Some employees perceive their job as an opportunity to use their skills, to contribute to society and to do something that reflects their personal interest. In contrast, other employed people consider their working hours as necessary time to bridge between two weekends, perceive their jobs as a source of financial security, and their real life values lie beyond their jobs in having a lot of spare time and enjoying long holidays. Despite a plethora of different labels, most work and organizational researchers have empirically distinguished intrinsic, self-actualization or self-expressive work values from extrinsic, security or material work values (e.g., Akhtar, 2000; Alderfer, 1972; Borg, 1990; Butler & Vodanovich, 1992; Cotton, Bynum, & Madhere, 1997; Eichar, Norland, Brady, & Fortinsky, 1991; Elizur, 1984; Elizur, Borg, Hunt, & Beck, 1991; Elizur & Sagie, 1999; Mottaz, 1986; MOW, 1987; Pryor, 1987; Schwartz, 1999; Super, 1968).

Although a few past studies have indicated that intrinsic work values are more positively related to one's job satisfaction than extrinsic work values (references), the processes explaining these relationships have not been researched, yet. The goal of the present contribution it than to shed light on these mechanism by exploring whether experienced satisfaction of the need for autonomy, competence and relatedness (Deci & Ryan, 2000; Sheldon, Elliot, Kim, & Kasser, 2001) plays a mediating role herein, as suggested by self-determination theory (SDT; Deci & Ryan, 1985, 2000).
Work Values and Well-being

Consistent with Kasser and Ryan's (1993, 1996) conceptualization of intrinsic and extrinsic life values, we consider pursuing intrinsic work values as a reflection of employee's natural desire to actualize, self-develop and grow at the work place. Intrinsic work value pursuit is said to be associated with higher well-being within SDT, because its pursuit is more fully consistent with one's basic psychological needs for autonomy, relatedness, and competence (Deci & Ryan, 2000; Kasser, in press; Sheldon & Kasser, 2001), which are considered to be the 'nutriments or conditions that are essential to an entity's growth' (Ryan, 1995, p. 410). According to SDT, people need to feel they freely choose the behaviors they engage in (autonomy; deCharms, 1968; Deci, 1975), that they have some close and satisfying connections with others (relatedness; Baumeister & Leary, 1995), and that they are effective in the activities they undertake (competence; Bandura, 1977).

Being intrinsically work oriented is more likely to result in need satisfaction and thus higher well-being at work, because intrinsically oriented individuals might for instance try to have a say in what they can do on their jobs, leading them to experience a sense of freedom and choicefulness in their work. They might also seek out challenging tasks that allow them to develop new skills (Amabile, Hill, Hennessey, & Tighe, 1994), thereby satisfying their need for competence, and because they feel concerned about other people they might relate to others in a truthful way.

Extrinsic work values concern 'the traditional pursuit of success by advancing up the organizational hierarchy to achieve prestige, status, and high income' (Watts, 1992, p.51). As indicated by Kasser and Ryan (1993) and Sheldon and Kasser (2001), the
importance of extrinsic values mostly lies within the anticipated personal satisfaction, power, admiration and self-worth that can be obtained by realizing such an extrinsic value. Extrinsic values are primarily focused on obtaining contingent external approval and rewards, thereby neglecting their personal wants and interests. However, adopting such an 'outside' orientation (Williams et al., 2000) is likely to have its psychological cost: extrinsically oriented individuals are less likely to display high job satisfaction, because they experience less satisfaction of their basic psychological needs along the way.

For instance, because extrinsically oriented individuals hang their self-worth upon attaining extrinsic outcomes (Kasser, in press, Kasser & Ryan, 1996), their ego-involving demands might continually pressure them into action, undermining their need for autonomy. Because they might over-idealize wealth and possessions (Kasser, in press), they continually experience a discrepancy between their romanticized extrinsic (but unattainable) values and their present state, enhancing their feelings of incompetence.

To our knowledge, only a few studies researched the relation between the content of one's work values and affective outcomes, because most of the work and organizational psychologists (e.g., Cotton et al., 1997; Hagstrom & Gamberale, 1995; Sverko, 1999; van der Velde, Feji, & van Emmerik, 1998) were interested in clarifying the structure and the evolution of work values over time, as pointed out by Roe and Ester (1999). In addition, many researchers did not focus on the relation between job satisfaction and the degree to which employees value intrinsic or extrinsic work goals, but on its relation with the degree to which employees experience intrinsic and extrinsic
work values (e.g., Knoop, 1994a), the extent to which employees values are congruent with their organizational values (e.g., Meglino, Ravlin, & Adkins, 1989), and the degree to which the job contains intrinsic and extrinsic task characteristics. In other studies, employee job satisfaction was separately measured, and it was found to be dependent on intrinsic and extrinsic rewards offered by a job (e.g., Eichar et al., 1991; Mottaz, 1984, 1986; Tuch & Martin, 1991), the degree to which

Past research within the organizational domain has shown that intrinsic rather than extrinsic job facets influence employee's job satisfaction (e.g., Gaziel, 1986; Sergiovanni, 1967). However, job satisfaction was not separately assessed in these studies, so that the direct relation between certain job characteristics and job well-being could not be studied.

Asking for people's experienced work values and measuring the presence of objective intrinsic and extrinsic task characteristics in the work environment is though different from rating the importance of work values, as was the case in the present study.

The direct relation between employee's work values and job satisfaction has only been reported by a few researchers (e.g., Cheung & Scherling, 1999; Drummond & Stoddard, 1991; Knoop, 1994b), and no study examined the relation with people's overall well-being. Drummond and Stoddard (1991) found, in line with our thinking, that the importance of economic returns, security and management (which might all represent extrinsic work values) were negatively correlated to job satisfaction. However, creativity
and variety (both intrinsic work values) were also negatively correlated to job satisfaction in their quite specific group of 69 undergraduate and graduate female education majors working in helping professions. Just as Drummond and Stoddard (1991), Knoop (1994b) did not perform a factor analyses on the set of 16 measured work values that were borrowed from Elizur (1984) to restrict the number of work values. Correlational results indicated that several intrinsic and extrinsic work values except for status (which is considered an extrinsic work value within a SDT perspective) were positively related to several job satisfaction measures.

Further, in line with our hypotheses, Cheung and Scherling (1999) found that placing higher value on the task and team dimension and lower value on the reward dimension seemed to lead to greater job satisfaction. However, these authors did not include an overall measure of job satisfaction, but rather assessed certain dimension of job satisfaction (i.e., task satisfaction, reward satisfaction etc.).

A study by Amabile, Hill, Hennessey, and Tighe (1994) might also provide some evidence for our hypotheses. In that study, the relation between people's intrinsic and extrinsic motivational work orientations and performance outcomes was measured. Intrinsically motivated people were those who engaged in work for its own sake, because the work is enjoyable and satisfying in itself, while extrinsically oriented individuals were mainly motivated in response to rewards, recognition or dictates from other people. Intrinsic work orientations correlated positively with several indices of job performance, self-perceived interest and involvement in the task, while no such correlations were found for extrinsic work orientation, but people's work orientations were not related to their well-being as in the present study. Nevertheless, their study suggest that motivational
orientations that are more closely aligned with people's natural interests and wants are associated with more positive outcomes, as is predicted in the present study, too.

More specifically, these authors argued that intrinsically oriented individuals engage in activities that are more likely to satisfy their basic needs, which in turn would positively predict their well-being and vital functioning. However, Kasser and his colleagues (e.g., Schmuck, Kasser, & Ryan, 2000) assessed people's life values and thus paid attention to people's general level of motivation, while in the present study we assessed people's work values and focused on people's contextual (i.e., work-related) level of motivation (Roe & Ester, 1999; Ros, Schwartz, & Surkiss, 1999; Vallerand, 1997, 2000).

On a general level of motivation, several studies revealed that a relative strong focus on intrinsic (versus extrinsic) life values is associated with greater positive affect in daily life, greater openness to new experiences, higher self-esteem, more social productivity, more vitality, reduced narcissism, fewer physical health complaints, and less drug and alcohol abuse (Kasser & Ryan, 1993; 1996, 2001; Sheldon & Kasser, 1995, 1998). This basic pattern of results has been replicated in several cross-cultural samples (e.g., Chan & Joseph, 2000; Kasser & Ahuvia, 2002; Ryan, Chirkov, Little, Sheldon & Deci, 1999; Schmuck, Kasser, & Ryan, 2000). All together, these studies provide clear empirical evidence for the claims of humanistic thinkers as Kasser (in press), Sheldon and Kasser (2001), Maslow (1954, 1955) and Rogers (1961) that distress occurs when people behave to obtain self-worth through the approval of others rather than on the basis of their own inherent needs and wants. To conclude, in the third hypotheses of this study
it was stated that the pursuit of intrinsic work values would positively predicts employee's experienced job satisfaction and well-being.

**Extrinsic Work Values across Different Socio-economic Classes**

Two different statistics were used to test our second and third hypotheses. Regression analyses allowed us to explore whether the importance of intrinsic work values with a person's value system relative to the person's extrinsic work values would be positively associated with need satisfaction and well-being indicators. Next, we ANOVA-analyses were conducted in which employees scoring high or low on both types of work values were directly compared with those that do only pursue one type of work value. The latter analyses allowed us to answer a few more important questions. For instance, we explored whether extrinsically oriented employees would be better off if they also placed importance on intrinsic work values, and whether they differed from people scoring low on both types of work values. The same kind of questions could be addressed for intrinsically oriented employees: do they experience higher need satisfaction and well-being if they also attach importance to extrinsic work values, and do they differ from employees with low work values?

These questions can not be well-answered by a regression analyses because regressions allow us to look at the association between the relative centrality of the different types of work values within a person and outcomes, but such analyses do not capture the dynamics of individuals who rate both types of values similarly. In general, it was predicted that the pursuit of intrinsic work values would be more growth-promoting, while the pursuit of extrinsic work values might play a distracting and thus more undermining role.
To conclude, on the basis of SDT it was predicted that when the pursuit of intrinsic work values is out of balance with the pursuit of extrinsic work values, employees (a) will experience lower job satisfaction and lower well-being, and (b) it was claimed that these associations would still be hold after controlling for background variables, such as age, gender, socio-economic status and income. In addition, we also examined (c) how people who attach importance to one of both types of work values stand in relation to employees with who mainly focus on one type of work value, and how the former group relates to those with both low intrinsic and extrinsic work values.

Study 1

Method

Participants and Procedures

The data used are part of the third wave of the European Values Study (EVS) (Halman, 2001). Only the data from Belgium were available at the moment of the analysis. Because we want to include job satisfaction in our analysis, the sample was limited to employed respondents only (N = 896). A random sample of addresses within the three parts of Belgium (Brussels, Flanders and Wallonia) was selected, and respondents were interviewed at home. The data were gathered during the first part of 1999. The sample was representative for the Belgian population, even though a slight underrepresentation of low skilled individuals was noted (for more details, see: Dobbelaere et. al., 2000).

The present sample can be characterized in the following way in terms of demographics: 8% was less than 25 years old, 47% was between 25 and 40 years old, 37% was between 41 and 55 years old, and 8% was more than 55 years old; 10% had a
low income, 20% a moderate low income, 29% a moderate high income and 41% a high income; 23% was low educated, 34% was moderately educated, and 43% was highly educated; 58% were male, and 42% were female. All occupational levels were included: about 29% were blue-collar workers, 48% were white-collar workers, 14% were professionals, and about 7% was self-employed. Measures

Since we use the data of the European Values Study, the choice of measures was limited to measures available in the questionnaire.

Work Values. Participants were asked to report the importance of items which were formulated to capture either intrinsic or extrinsic work values, by recording their agreement with each item (1 = important, 0 = not important). To support the classification into intrinsic and extrinsic work values, a factor analysis with promax rotation was conducted on the ten items. Two easily interpretable factors (each containing five items) were found, which support the theoretically based distinction between intrinsic and extrinsic work values (See Table 2). This analysis is complementary with the findings reported in studies focusing on work values (e.g., Borg, 1990) as well as life values (e.g., Kasser & Ryan, 1993, 1996). Both subscales had satisfying reliability ($\alpha = .68$ and .70), and were significantly positively correlated ($r = .29$, $p < .001$).

Job Satisfaction. Participants were asked to indicate to what degree they were satisfied with their present jobs by encircling a number between 1 (Dissatisfied) and 10 (Satisfied).
Regression Analyses. To test the first hypothesis, regression analyses were conducted for each outcome variable, in which the score for importance of intrinsic work value was entered in the prediction equation after controlling for the overall work importance. Thus, for example, job satisfaction was regressed onto the overall importance of work values at Step 1, and then the semipartial for the importance of intrinsic values was tested at Step 2. This procedure is analogous to that conducted by Kasser and Ryan (1993, 1996), as it controls for people's general tendency to attach high importance to any of both work values without taking into account the content of work values. So, this procedure explores the importance of intrinsic work values to a person relative to the person's extrinsic work values.

As shown in Table 2, intrinsic work values were positively associated with all need satisfaction indices: the more intrinsic work values form a central aspect of one's

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1 Taking out the total work importance (regardless of its content) in a first step and entering intrinsic work values in a second step implies looking at the relative importance of intrinsic versus extrinsic work values. Entering extrinsic work values in a second step yields a consideration of the importance of extrinsic versus intrinsic work values. Because such analyses provides the same results but opposite in sign, only the results for the intrinsic work value analyses are reported.
total system of work values, the more one is satisfied with one's job and one's life, and the happier one is.

ANOVA-analyses. As indicated earlier, as a second way of examining how the relative striving for intrinsic and extrinsic work values is associated with need satisfaction and well-being, we divided each type of aspiration in three groups (low, medium and high score) and crossed both variables to form nine different groups. We were interested in comparing the extreme groups: (1) those high in striving for intrinsic work values and low in extrinsic work values (Group 1); (2) those who attach strong importance to extrinsic work values, but no importance to intrinsic work values (Group 2); (3) those who strongly pursue both intrinsic and extrinsic work values (Group 3); (4) those who score low on both types of work values (Group 4).

ANOVA's were conducted to determine whether any differences existed between the four groups. Significant results were obtained for pro-social orientation (F(8, 896) = 3.10, p<.01), for experienced freedom on the job (F(8, 896) = 7.09, p<.001), for locus of control (F(8,896) = 2.85, p<.01), and for happiness (F(8,896) = 2.05, p<.05), while groups did not significantly differ in terms of job satisfaction (F(8, 898) = 1.67, p<.10) and life satisfaction (F(8,898) = 1.31, p<.23). Cell means for each of the four groups on dependent variables are presented in Table 4.
Next, we conducted planned t-tests to examine the differences between the four groups. First, in line with our previous analyses, we explored whether Group 1 participants (those with strong intrinsic work values) differed from Group 2 participants (those with strong extrinsic work values). Group 1 participants were more satisfied with their jobs (p<.01), had higher life satisfaction scores (p<.05) and felt more happy (p<.01) than participants of Group 2. These findings are complementary with the previous regression analyses.

Then, we investigated whether extrinsically oriented employed people are better off if they also have strong intrinsic work values by comparing Group 2 and Group 3. Employed people who pursue both intrinsic and extrinsic work values reported to be more satisfied with their jobs (p<.01) and lives (p<.05) than merely extrinsically oriented employed people, indicating that the pursuit of intrinsic work values is growth-promoting, as could be expected on the basis of SDT.

Similarly, we explored whether intrinsically oriented employed people would function more optimally if they also had strong extrinsic work values by comparing Groups 1 and 3. Employed people who strongly value both types are less happy (p<.05) than those who only attach importance to intrinsic work values.

In order to determine whether valuing extrinsic work values is better than valuing no work values at all, we compared Groups 2 and 4. Extrinsically oriented employees are less happy (p<.05) and somewhat less satisfied with their jobs (p<.10) than employees with low intrinsic and low extrinsic work values. Finally, we explored whether being intrinsically oriented would also be associated with such a decrement by comparing intrinsically oriented people (Group 1) with people who score low on both types of values.
Valuing intrinsic goals was associated with being more satisfied with one's job \( (p<.05) \).

In sum the results of these ANOVA analyses indicated that adopting a strong extrinsic work orientation as an intrinsically oriented employed person might entail a decrease well-being, while adopting an intrinsic work orientation as an extrinsically oriented person is associated with an enhancement in optimal functioning. Complementary, being extrinsically oriented towards one's job is associated with a decline in well-being compared to having no work values at all, while being intrinsically oriented score higher on several indices compared to people with low work values.

Background Variables. In a next step, we examined whether the predicted relations between the content of employee's work values and outcomes would be maintained when we controlled for effects of gender, age, level of education and socioeconomic background. We first explored the relations between those background variables and extrinsic and intrinsic work values. Level of education and income were both positively correlated to intrinsic work values \( (p<.001) \), while only level of education was negatively associated with extrinsic work values \( (p<.001) \), replicating findings reported by Mottaz (1984). Furthermore, t-tests revealed that there were no significant differences between females and males (in line with Akhtar, 2000; Brief & Oliver, 1976), while older employed people (more than 55-years old) tended to attach more importance to intrinsic work values \( (p<.06) \), and less importance to extrinsic work values \( (p<.06) \) compared to their younger employees (younger than 55-years old), replicating findings obtained by Kasser and Ryan (1996) and Sheldon and Kasser (2001) for people's life values.
When background variables and interactions with type of work values were regressed on outcomes, none of the interactions turned out to be significant, and are therefore not reported in Table 5. However, several main effects were obtained. Age was positively related to pro-social orientation and perceived freedom at the job, and positively predicted job satisfaction, as found in several other studies (e.g., Birdi, Warr, & Oswald, 1995; Warr, 1992). Finally, age was positively related to life happiness, replicating earlier studies (e.g., Diener & Suh, 1998), but was unrelated to life satisfaction. Level of education positively predicted pro-social orientation and also life satisfaction, as found by others (e.g., Diener, Sandvik, Seidlitz & Diener, 1993), while income was slightly positively related to life happiness, as found in other studies (see Diener, Suh, Lucas, & Smith, 1999). Finally, male employed people perceived to have more freedom at their jobs than female. All of the relations between type of work values and outcomes remained significant when controlled for background variables, except one: the positive association between intrinsic work values and life satisfaction disappeared.

The goal of Study 2 was fourfold. First, we aimed to explore whether basic need satisfaction played a mediating role in the relation between the content of one's work values and job satisfaction. Second, in doing so, we did not longer rely on a nomothetic approach, but on an idiographic goal-approach (Emmons, 1989), allowing employees to
generate their personal work goals and to indicate to what extent those goals serve the attainment of intrinsic and extrinsic work values. Third, a broader range of dependent variables was included, reflecting both positive facets of one's job well-being (i.e., job vitality, job commitment and job satisfaction) and negative facets (i.e., burn-out). Fourth, we tried to overcome some of the methodological weakness of Study 1 by using well-validated outcome variables, containing several items and by more extensively measuring employee's work values.

Finally, we hypothesized that the relation between type of work value and affective outcomes would be mediated by basic need satisfaction, as claimed by SDT. The pursuit of intrinsic work values is associated with job satisfaction and well-being, because intrinsically oriented people engage in activities that are more likely to be accompanied by satisfaction of their basic psychological needs. No previous study within the SDT framework has explicitly tested this mediating hypotheses, although a few studies explored the direct link between experienced need satisfaction on the work floor and outcomes. In this respect, Ilardi, Leone, Kasser and Ryan (1993) found that need satisfaction at work was associated with positive job attitudes, higher self-esteem and general health. Similar findings were reported by Kasser, Davey, and Ryan (1992) and Deci, Ryan, Gagne, Leone, Usunov and Kornazheva (2001).

Basic Psychological Need Satisfaction
In line with SDT (Deci & Ryan, 2000; Kasser, in press; Sheldon, 2001; Sheldon & Kasser, 2001; Ryan, Sheldon, Kasser, & Deci, 1996), it was hypothesized that the actions employed people undertake on their job are very different, and might partially depend on their work values. Intrinsically oriented employees were thought to engage more often in job activities that satisfy their basic psychological needs for autonomy, relatedness, and competence. According to SDT, people need to feel they freely choose the behaviors they engage in, that they have close connections with others, and that they are effective in the activities they undertake. For example, intrinsically oriented employed people might try to have a say in what they can do on their jobs and will subsequently experience a sense of freedom and choicefulness in their work. They might seek out challenging tasks that allow them to develop new skills (Amabile, Hill, Hennessey, & Tighe, 1994), and make them feel competent, and because they feel concerned about other people they might relate to others in a truthful way.

In contrast, the pursuit of extrinsic work values is expected to distract employees from their underlying psychological needs (Kasser, in press; Kasser & Ryan, 1996). For instance, it is likely that employed people who mainly perceive their job as a basis of financial security will restrict themselves to what is absolutely necessary according to their wages. They will care less about job participation, and will let themselves be bossed around more on their jobs, undermining their need for autonomy.

Up to our knowledge, no study within the work and organizational domain has explicitly explored the relation between employee's work values and basic need satisfaction. However, several studies within a SDT framework might provide some initial evidence for our hypotheses. Recently, Kasser (in press) provided an excellent
overview of these studies. Results of several studies (McHoskey, 1999; Richins & Dawson, 1992; Sheldon & Kasser, 1995; Sheldon & McGregor, 2000) indicate that extrinsically oriented people are less likely to connect in a close, authentic, and interpersonally trusting way to others, which is necessary for the satisfaction of people's need for relatedness.

Furthermore, because extrinsically oriented individuals hang their self-worth upon attaining extrinsic outcomes (Kasser, in press, Kasser & Ryan, 1996), their ego-involving demands might continually pressure them into action, undermining people's need for autonomy. In fact, research shows that extrinsically oriented people are more motivated by rewards, praise and external incentives (Kasser & Ryan, 1993; Sheldon & Kasser, 1995), and report more controlled reasons for pursuing their values (Sheldon & Kasser, 1995, 1998). Finally, Kasser (in press) argued that materialistic individuals over-idealize wealth and possessions. Therefore, they continually experience a discrepancy between their romanticized extrinsic (but attainable) values and their present state, enhancing their feelings of incompetence and insecurity.

It must be noticed that the amount of basic need satisfaction has never been directly measured in those studies. In the present study, perceived relatedness was assessed with the concept of pro-social orientation, which is considered one of the relatedness themes by Ryan and Deci (2000) and Bauer and McAdams (2000). The degree of experienced choice and freedom on the job obviously represents one of the aspects of the need for autonomy in the work place (e.g., Ilardi, Leone, Kasser, & Ryan, 1993). Finally, we also measured people's locus of control (Rotter, 1966), which refers to...
people's expectations about the degree to which they can influence the outcomes in their environment. Individuals with an internal locus of control perceive themselves as 'having their lives in their own hands', and individuals with an external locus of control think that luck, chance, fate or powerful others determine the course of their live. According to Connell and Wellborn (1991), and Grolnick, Gurland, Jacob, and Decourcey (2001) control beliefs are linked to the need of competence: people who feel competent are more likely to believe they can control their achievement outcomes. In short, our three measures could well be considered as a crucial element of one of the three basic needs. Therefore, the second purpose of the study consisted in showing that the pursuit of intrinsic work values would be positively related to those three indicators of basic need satisfaction.

*Work Values and Well-Being*

Because of the expected links between intrinsic work values and basic need satisfaction, it was predicted that the pursuit of intrinsic work values would be associated with enhanced job satisfaction and general well-being, while the pursuit of extrinsic work values would be related to a decrement in both well-being indicators (Deci & Ryan, 2000; Kasser, in press). To state it differently, displaying a 'being orientation' focused on the actualization of one's true self (Deci & Ryan, 1995) was expected to be positively associated with well-being (Fromm, 1976, Sheldon & Kasser, 2001). In contrast, strongly pursuing a 'having orientation' focused on obtaining wealth and status rather signals an alienation from one's true self and basic needs and reveals a high concern with other people's opinions and perceptions rather than one's own, and is therefore thought to be associated with lower job satisfaction and well-being.
Discussion

In this study we applied the idea of differentiating between intrinsic and extrinsic values (Kasser & Ryan, 1993, 1996) to the work domain. According to SDT, intrinsic work values are considered to be congruent with growth and self-actualization at the work place, whereas extrinsic work values are focused on attaining good external working conditions (e.g., generous holidays, etc.) and getting appraisal and rewards from others (e.g., good pay, promotion). In line with other work and organizational studies (e.g., Borg, 1990) a factor analyses clearly distinguished between both types of work values.

Kasser (in press) and Kasser and Ryan (1996) suggested that the content of one's work values makes a difference in terms of need satisfaction. Intrinsically oriented individuals were thought to engage more often in activities that satisfy their needs for autonomy, competence, and relatedness (Deci & Ryan, 2000; Sheldon et al., 2001). Up to our knowledge, this was the first study to explore this hypotheses. Having strong intrinsic work values was positively related to experiencing freedom at the work floor, to having an internal locus of control over the outcomes in one's lives and to feeling concerned about other people. Such results are consistent with previous studies that investigated the relation between life values and rather indirect measures of need satisfaction (e.g., McHoskey, 1999; Sheldon & Kasser, 1995, 1998).

Because of this differential relation with need satisfaction, the pursuit of intrinsic work values would be more positively associated with well-being indicators. Only a few studies within the organizational domain (e.g., Cheung & Scherling, 1999) had studied
this relationship. The results of the present study clearly confirm this hypotheses. First, regression analyses showed a general pattern in which the relative centrality of intrinsic work values was positively associated with indicators of both job well-being and general well-being.

Second, ANOVA-analyses indicated that striving for intrinsic work values as an extrinsically oriented employee is associated with an enhancement in both job well-being and life satisfaction and similarly, intrinsically oriented employees were more satisfied with their present jobs compared to employees with low intrinsic and extrinsic work values. These findings are in line with SDT and complementary with findings obtained in several other studies (e.g., Kasser, & Ryan, 2001). In short, these results confirm that the 'what' of goal pursuits (Deci & Ryan, 2000) matters on the work floor. Strongly valuing intrinsic rather than extrinsic work values makes a difference in terms of both (job) well-being and need satisfaction.

However, more interestingly, to our knowledge, this is the first study that empirically tested the hypotheses that the relation between the content of one's work strivings and well-being might be due to a differential degree of basic need satisfaction (Deci & Ryan, 2000; Kasser & Ryan, 1996). Hierarchical regression analyses provided evidence for this mediational hypotheses. It is interesting to notice that experienced freedom at the work place, as a work related measure of perceived autonomy, explained most of the variance in work related outcomes (job satisfaction), while locus of control, as a global measures of perceived competence, explained most of the variance of global outcomes (life satisfaction and life happiness).
These findings might be interpreted in two different ways. First, it might be that intrinsically oriented employees engage more often in activities that satisfy their basic needs, and that the pursuit of intrinsic work values thus plays a growth-promoting role (Deci & Ryan, 2000). For instance, intrinsically oriented employees value occupying a personally interesting and meaningful job, and subsequently, they take initiative and responsibility for their work, and they experience a sense of freedom; they are recognized for such efforts, and experience a sense of personal accomplishment and effectance. Moreover, they find it important to do something for the betterment of society or to help colleagues on their jobs, and might therefore relate in an authentic way to other people.

ANOVA-analyses provide evidence for such an interpretation: extrinsically oriented employees experience more need satisfaction (all three indicators) when they also have strong intrinsic work values, and intrinsically oriented employees have a higher internal locus of control and feel more concerned about other people compared to employees scoring low on both types of values. In other words, pursuing intrinsic work values is associated with an enhancement in basic need satisfaction.

Second, we might also consider the perspective of extrinsically oriented individuals. As suggested by Kasser (in press), extrinsically oriented individuals over-idealize extrinsic work values. This results in at least two negative consequences in terms of need satisfaction. First, they hang their self-worth upon attaining those work values, and therefore, ego-based demands pressure them to strive to attain these values, undermining their feelings of choice and freedom at the work place. Second, because of this over-idealization of extrinsic work values extrinsically oriented employees continually experience a discrepancy between their ideal extrinsic work values (e.g.,
having a good paid job, generous holidays etc.) and their present state. Because their desire for extrinsic values cannot be fulfilled (they always want to be paid more, to have longer holidays etc.), they seldom have the feeling of getting what they want (i.e., extrinsic values). So, they might continually experience feelings of incompetence and insecurity.

The ANOVA-analyses of the present study provide some evidence for the claim that the pursuit of extrinsic work values distracts people from their inherent needs and wants. Intrinsically oriented individuals experience less control over the outcomes in their lives and experience less choice and freedom at the work floor if they also have strong extrinsic work values, and extrinsically oriented employees experience less freedom compared to employees with low intrinsic and extrinsic work values. Presumably, strongly striving for extrinsic values undermines the people's feelings of free choice at the work floor and makes them feel they never have their lives in their own hands (because even the sky is not the limit for them).

Moreover, on a conceptual level those results suggest that people's needs and work values could better be defined separately. Some researchers (e.g., Post-Kammer, 1987) have defined intrinsic work values as people's strivings for autonomy and competence in the work place. As argued by Deci and Ryan (2000) people do not need to consciously focus on their needs to get them met. In line with Kasser and Ryan (1993, 1996), we would rather consider intrinsic work values as employee's expressions of their natural desire to grow and self-develop, and by being oriented on such outcomes people experience satisfaction of their needs for autonomy, competence and relatedness along the way. So, we plead for a conceptual distinction between work values and basic needs,
because this allows us to better understand the mechanisms through which the aspiration of intrinsic and extrinsic work values is associated with job satisfaction and well-being.

Limitations and Future Research

Several limitations of the present study warrant particular discussion. First, all data are correlational and cross-sectional in nature, so no conclusions regarding causality can be made. Although the hierarchical regression indicated that the impact of type of work values on well-being outcomes was mediated by need satisfaction, we suggest that there exists a reciprocal relation between type of values and basic need satisfaction. It might also be that failing to get met your needs leads to adopting extrinsic work values. The less employees are able to relate in an authentic way to others, the less they have a say about what should be done at the work place, and the less their supervisors provide them with positive feedback, the more they will hang up the worth of their self and their jobs on extrinsic outcomes, such as good pay, having generous holidays, good hours and experiencing not too much job pressure. Indeed, extrinsically oriented people might find themselves in vicious circle, which might be specifically difficult to escape (Sheldon, 2001; Sheldon & Houser-Marko, 2001).

Second, a few of the constructs were only measured with one single item decreasing the reliability of the measured construct. However, Wanous, Reichers and Hudy (1997) reported that a correlation of .63 and a corrected mean correlation of .67 between single job well-being items and scales. These results bolstered the argument of Scarpello and Campbell (1983) that a single-item measure of overall job well-being is acceptable. Furthermore, Pavot, Diener, and Suh (1998) and Pavot and Diener (1993) indicated that single item measure of life satisfaction and happiness proved to be
remarkably high in reliability and validity, and were still valuable alternatives when brief
measures were needed.

Third, the measures used to reflect need satisfaction at work possibly only represented
some aspects of those concepts. Therefore more extended measures of need satisfaction at
work (e.g., Ilardi, Leone, Kasser, & Ryan, 1993) should be included in future research. Fourth,
Kasser and Ryan (1996) differentiated between different types of intrinsic and extrinsic values,
while only the present work value measures only represented one of those. We are currently
executing other studies in which a more extended number of both intrinsic and extrinsic work
values is studied.

Fifth, the present research has focused only on individuals in one culture and historical
period, and findings might not be cross-culturally generalizable. Although some studies have
demonstrated the generalizability of the concept of life values (e.g., Kasser & Ahuvia, 2002),
the relevance of intrinsic and extrinsic work values in predicting job well-being and well-being
in other cultures, during other historical periods and among other samples (e.g., unemployment
groups) still has to be demonstrated.

Conclusion

To summarize, in line with the so-called promising message of the American dream
(Kasser & Ryan, 1993, 1996; Ryan, 1993) a lot of organizations nowadays try to convince
jobless people by offering them several external outcomes: a car, longer holidays, good
promotion opportunities, high wages, a mobile phone etc. In a materialistic way of thinking
such outcomes are considered to be a sign of happiness and good job functioning. Employers
hope their employees become job committed and satisfied with their present jobs by using
such extrinsically motivating strategies.
However, there are at least three major negative consequences related to such principles: first, such extrinsic strategies tend to undermine people’s spontaneous interest in the task at hand (Deci, Koestner, & Ryan, 1999; Gagne & Deci, submitted); second, employees might become dependent on such external outcomes; on a moment that they do not get the same extrinsic outcomes any longer (e.g., due to an economic crisis), they might become passive and discouraged, and even leave the organization, because their motivation largely depended on getting the outcome; third, when employees are exposed to such an ‘extrinsic or materialistic culture’ of an organization, they might take on materialistic values and strive to attain them, as humans have the natural tendency to internalize ambient cultural/familial values and behavioral regulations (Kasser, in press; Ryan & Connell, 1989; Schein, 1985), a process referred to as organizational socialization (Feldman, 1981). The present study indicates though that valuing extrinsic work values is associated with negative outcomes: such employees are less happy and satisfied with their present jobs, because they have less need satisfying experiences, whereas the reverse is true for intrinsically oriented employees. In other words, this study provides support that an organismic way of thinking in which persons are viewed as active, genuine, authentic and meaningfully related to others can also be applied to work organizations (Deci & Ryan, 1991; Fromm, 1976, Maslow, 1954, 1955; Rogers, 1961; Sheldon & Kasser, 2001).

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In addition, extrinsically oriented employees might orient themselves to activities that are unlikely to be enjoyable for its own sake, but that instead are quite stressful and controlling (e.g., strategizing about ways to defeat your opponent to get the financial promotion) (Sheldon & Kasser, 2001) further undermining one's well-being.

Intrinsic versus extrinsic work values, that intend to measure 'what' people value on their job, should be contrasted with the general concept of employment value (Feather, 1990, 1992) that, as measured The Protestant Work Ethic Scale (Mirels & Garret, 1971), the Protestant Ethic Scale (Blood, 1969) and the Work Ethos Scale (De Witte, 2000) are three other instruments that do not differentiate between several work values, but rather rate the centrality of work in general in people's lives (MOW, 1987; van der Velde, Feji, & van Emmerik, 1998; Warr, 1987). To state it differently, in the present study, we did
not focus on the degree to which employed people value work (they value work), but which values employed people hold about work (they value on their jobs). So, the first purpose of the present study was to find a factor structure that differentiates between intrinsic and extrinsic work values, as found in other organizational studies (e.g., Pryor, 1987).

**Mediation Analyses.** The next goal of this research was to explore whether the positive relation between intrinsic work values and positive affective outcomes is mediated by need satisfaction. To test this mediating hypotheses, we used regression-based path models. According to Judd and Kenny (1981), data fit a mediation model if (a) the independent variables significantly predict the outcome measures, (b) the independent variables significantly predict the hypothesized mediating variables, and (c) the mediating variables is significantly related to the outcome variables, and (d) the mediating variables significantly predict the outcome measures when effects of the independent variables are controlled. Having provided evidence for step (a) and (b), we first explored the correlations between indicators of need satisfaction and (job) well-being. In line with other studies (e.g., Ilardi, et al., 1993), all three measures of need satisfaction were positively correlated with (job) well-being; only, prosocial orientation was unrelated to life happiness (See Table 1).

Finally, we conducted hierarchical regression analyses in which we entered the sum of both types of work values in a first step, one of both types of values in a second step, and three indicators of basic need satisfaction in a last step. Results indicated that the significant effect of intrinsic work values on job well-being, life satisfaction and life happiness became insignificant after introducing the three basic need indicators, and that
almost all three needs positively predicted all affective outcomes. Only perceived
relatedness was found to be unrelated to life happiness in the last step (See Table 6).
Those results indicate that the impact of intrinsic values is mediated by basic need
satisfaction.

Insert Table 6 about here

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Table 1
Correlations Between Dependent Variables

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td>Pro-social orientation (1)</td>
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<td>Locus of Control (3)</td>
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<td>.13***</td>
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<tr>
<td>Life Satisfaction (5)</td>
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<td></td>
</tr>
<tr>
<td>Happiness (6)</td>
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<td>.54***</td>
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*p<.10, **p<.05, ***p<.01
Table 2

Loading From Factor Analyses On Intrinsic and Extrinsic Work Value Items (N = 896)

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<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
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</thead>
<tbody>
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<td>Having a good paid job</td>
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</tr>
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<td>Having job security</td>
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</tr>
<tr>
<td>Not too much pressure on the job</td>
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<td></td>
</tr>
<tr>
<td>Having good working hours</td>
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<td></td>
</tr>
<tr>
<td>Having generous holidays</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>A job where you can take initiative</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>A job that is useful for society</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td>A job where you get responsibility</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>Having an interesting job</td>
<td>.66</td>
<td></td>
</tr>
<tr>
<td>A job where you used your abilities</td>
<td>.73</td>
<td></td>
</tr>
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</table>
Table 3

Relations of Intrinsic Work Values to Need Satisfaction, Job Satisfaction and Well-being

<table>
<thead>
<tr>
<th></th>
<th>Perceived Relatedness</th>
<th>Perceived Autonomy</th>
<th>Perceived Competence</th>
<th>Well-Being</th>
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<tbody>
<tr>
<td></td>
<td>Pro-social orientation</td>
<td>Perceived Freedom</td>
<td>Locus of Control</td>
<td>Life Satisfaction</td>
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<tr>
<td>Step 1</td>
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<td>.05</td>
<td>.05</td>
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<tr>
<td>Step 2</td>
<td>Intrinsic</td>
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<td>.41***</td>
<td>.24**</td>
</tr>
</tbody>
</table>

*p<.10, **p<.05, ***p<.01
Table 4

Relations of Intrinsic Work Aspirations to Need Satisfaction and (Job) Well-being Controlled for Age, Level of Education, Level of Income, and Gender

<table>
<thead>
<tr>
<th></th>
<th>Perceived Relatedness</th>
<th>Perceived Autonomy</th>
<th>Perceived Competence</th>
<th>(Job) Well-Being</th>
</tr>
</thead>
<tbody>
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<td>Freedom at one's job</td>
<td>Locus of Control</td>
<td>Job Satisfaction</td>
</tr>
<tr>
<td>Step 1 Overall</td>
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<td>.05</td>
<td>.06*</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2 Intrinsic</td>
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<td>.38***</td>
<td>.20***</td>
<td>.16***</td>
</tr>
<tr>
<td>Gender</td>
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<td>-.07**</td>
<td>.04</td>
<td>.04</td>
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<tr>
<td>Age Level of Education</td>
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<td>.12***</td>
<td>.06</td>
<td>.07**</td>
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<tr>
<td>Income</td>
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<td>.04</td>
<td>-.01</td>
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*p<.10, **p<.05, ***p<.01
Table 5

Means of the need satisfaction and affective variables for the four groups differing in their relative striving for intrinsic and extrinsic work goals

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
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<tbody>
<tr>
<td></td>
<td>High Intrinsic - Low Extrinsic (N = 60)</td>
<td>Low Intrinsic - High Extrinsic (N = 41)</td>
<td>High Intrinsic - High Extrinsic (N = 115)</td>
<td>Low Intrinsic - Low Extrinsic (N = 125)</td>
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<tr>
<td>Pro-social Intention</td>
<td>18.08</td>
<td>15.89</td>
<td>18.18</td>
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<tr>
<td>Perceived Freedom</td>
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<td>7.23</td>
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<tr>
<td>Locus of Control</td>
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<td>6.16</td>
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<tr>
<td>Job Satisfaction</td>
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<td>7.80</td>
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<tr>
<td>Life Satisfaction</td>
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<td>7.20</td>
<td>7.91</td>
<td>7.69</td>
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<tr>
<td>Life Happiness</td>
<td>3.58</td>
<td>3.24</td>
<td>3.38</td>
<td>3.46</td>
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Table 6
Regression Analyses with Intrinsic Work Aspirations as Predictor and Indicators of Need Satisfaction as Mediating Variables

<table>
<thead>
<tr>
<th>Step</th>
<th>Job Satisfaction</th>
<th>Life Satisfaction</th>
<th>Life Happiness</th>
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<tr>
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<tr>
<td>Step 1</td>
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<td>.07**</td>
<td>.07**</td>
<td>.05</td>
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</table>

*p<.10, **p<.05, ***p<.01