

You want me to do what? Two daily diary studies of illegitimate tasks and employee well-being

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Summary

Illegitimate tasks, a recently introduced occupational stressor, are tasks that violate norms about what an employee can reasonably be expected to do. Because they are considered a threat to one's professional identity, we expected that the daily experience of illegitimate tasks would be linked to a drop in self-esteem and to impaired well-being. We report results of two daily diary studies, one in which 57 Swiss employees were assessed twice/day and one in which 90 Americans were assessed three times/day. Both studies showed that illegitimate tasks were associated with lowered state self-esteem. Study 1 demonstrated that high trait self-esteem mitigated that relationship. Study 2 showed that illegitimate tasks were associated with not only lowered state self-esteem but also lower job satisfaction and higher anger and depressive mood, but not anger or job satisfaction remained elevated until the following morning. Copyright © 2015 John Wiley & Sons, Ltd.

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Stressors at work have been consistently shown to relate to both physical and psychological health (Sonnentag & Frese, 2013), including symptoms of depression (Liu, Spector, & Shi, 2007) and a greater risk for cardiovascular diseases (Landsbergis et al., 2001). However, the bulk of research on the occupational stress-well-being link has focused on a relatively narrow set of stressors, and several authors (e.g., Rosen, Chang, Djurdjevic, & Eatough, 2010; Semmer, Jacobshagen, Meier, & Elfering, 2007) have argued for expanding the domain space of occupational stressors in an effort to maintain fidelity to the modern work experience.

In particular, the concept of illegitimate tasks has been posited as a new and promising stressor concept with ties to employee health and behavior. A task is illegitimate to the extent that employees think they should not have to carry it out; it is in violation of what employees feel that can reasonably be expected from them (Semmer et al., 2007, 2015; Semmer, McGrath, & Beehr, 2005). As we argue in the succeeding texts, illegitimate tasks constitute a rather special type of stressor; it is task-related, yet the stressful aspects derive not from the nature of the task *per se* but from its social meaning in relation to people's organizational roles. To the extent that the current economic climate renders employees being assigned tasks, they feel they should not have to do; examination of the under-explored issue of illegitimate tasks is timely.

Various limitations in previous research on illegitimate tasks have to be noted. First, only a limited number of outcomes have been examined (Semmer et al., 2015; Semmer, Tschan, Meier, Facchin, & Jacobshagen, 2010; Stocker, Jacobshagen, Semmer, & Annen, 2010). Second, individual differences in the reactivity to illegitimate tasks have largely been neglected (Semmer & Beehr, 2014; Semmer et al., 2010; Stocker et al., 2010). Third, previous studies focused mostly on cross-sectional inter-individual relationships between chronic experience of illegitimate tasks and

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chronic indicators of well-being, but only two studies examined intra-individual linkages over time (Kottwitz et al., 2013; Pereira, Semmer, & Elfering, 2014). Only the latter focused on daily fluctuations, the accumulation of which is a likely mechanism in the development of chronic stress symptoms (Bolger, Davis, & Rafaeli, 2003). Thus, through two independent studies, the current work addresses these issues.

The first goal of the present research is to extend our knowledge about the relationships between illegitimate tasks and well-being in terms of content, time frame, and variance components analyzed. Regarding content, we investigated if illegitimate tasks relate negatively to self-esteem, which is derived from the stress-as-offense-to-self (SOS) model, which assumes that illegitimate tasks may be ego-threatening and thus should reduce self-esteem. This assumption has been tested only cross-sectionally and with regard to chronic self-esteem (Semmer et al., 2015). Further, we included well-being indicators that have not been investigated so far (i.e., anger and depressive feelings). By exploring additional well-being markers, we can achieve a more comprehensive understanding of the scope of outcomes illegitimate tasks are linked to. Regarding time frames, we complement existing studies by focusing on daily experiences, which is important because potential long-term effects are likely to be consequences of an accumulation of short-term experiences (Bolger et al., 2003). Regarding variance components, we focused on intra-individual, rather than inter-individual differences. Such analyses are an important complement to the study of inter-individual differences and are particularly well suited to test psychological processes (e.g., Bolger et al., 2003; Dalal, Bhave, & Fiset, 2014; Ohly, Sonnentag, Niessen, & Zapf, 2010).

Illegitimate Tasks

The concept of illegitimate tasks was developed within the framework of “SOS” theory (Semmer et al., 2007, 2015). SOS is based on the widely accepted notion that maintaining a positive self-view is a basic human goal (Alicke & Sedikides, 2009). There are many things that contribute to people’s self-view; occupational roles typically are one of them (Ashforth, 2001), implying that not respecting these roles may be perceived as a threat to an employee’s occupational identity.

Organizational roles imply expectations regarding the appropriateness of tasks and thus convey the boundaries of what can reasonably be asked of that role occupant (Beehr & Glazer, 2005). For example, managers may be expected to handle delegation of subordinate duties, and teachers may be expected to create lesson plans for their classes. Illegitimate tasks are a violation of the line between what employees believe falls within their role boundaries and what does not. For example, an administrative assistant asked to care for an executive’s child, while the executive attends a meeting may be feeling “this is not my job!”. Illegitimate tasks therefore disrupt adequate fulfillment of one’s professional role. Illegitimate tasks violate one’s professional identity and are thus what Thoits (1991) has called *identity-relevant stressors*. The link between occupational roles, illegitimacy, and stress is demonstrated in a vignette study reported by Semmer (2000). Nurses were asked to imagine situations such as having to search for an x-ray in the archive for a long time. The reason given was either legitimate (the patient had come back to the hospital, and the x-ray was therefore needed) or illegitimate (a doctor needed the x-ray for a publication). The same task was considered significantly more stressful when it was not part of a nurse’s role (supporting doctors’ publications) than when it was (the patient was back). Furthermore, Semmer, Jacobshagen, and Meier (2006) conducted an interview study testing the assumption that illegitimate tasks detract from fulfilling one’s core role. In line with that assumption, they found that tasks considered ancillary had a much higher risk of being judged as illegitimate (60 percent) than tasks considered core tasks of one’s occupation (10 percent).

Illegitimacy may arise from being asked to do a task normally handled by others or from being asked to do a task that one believes is unnecessary and should not exist at all (e.g., having to compile documentation that no one ever uses). Notably, illegitimate tasks are not always demoting in nature (for instance, in “dirty work, Ashforth & Kreiner, 1999); in some instances, they may require skills above one’s level (e.g., asking a novice-teaching assistant to write the final exam). Importantly, tasks are illegitimate only when carrying out the task is involuntary and the

task assignment is unwanted; tasks that people decide to carry out themselves are not illegitimate (e.g., doing someone a favor, citizenship behavior). As is the case frequently in stress research, the emphasis is on the subjective appraisal; thus, people may have different conceptions of their roles and attach different importance to them. However, there is often consensus across people as to the level of stressors, suggesting that stressors also have some objective reality (e.g., Spector, 1992).

By studying illegitimate tasks, we can better understand how task assignments themselves can meaningfully covary with psychological well-being and relevant behaviors, as has been demonstrated with counterproductive work behavior (Semmer et al., 2010). However, the current state of research is relatively underdeveloped as illegitimate tasks have only begun to be empirically examined. For example, cross-sectional studies have shown that illegitimate tasks relate to lower job satisfaction and self-esteem and higher burnout (Semmer et al., 2015; Stocker et al., 2010), and to counterproductive work behaviors (Semmer et al., 2010), over and above other stressors. Moreover, Semmer et al. (2006, 2015) reported prospective relationships on feelings of resentment and irritation. However, as mentioned, only a limited number of outcomes have been examined. Moreover, only two studies investigated intra-individual linkages of fluctuations in illegitimate tasks (Kottwitz et al., 2013; Pereira et al., 2014), and only the latter focused on short-term (i.e., daily) fluctuations, which may be particularly sensitive to such task assignments.

Well-being outcomes

Self-esteem

Self-esteem has been shown to be highly relevant to several work-related outcomes including overall job satisfaction and job performance (Judge & Bono, 2001). This outcome is particularly relevant as the SOS concept suggests that demands to perform illegitimate tasks are expected to degrade self-esteem (Semmer et al., 2007, 2015). Illegitimate tasks are an attack on one's identity and thus, the self (Oyserman, Elmore, & Smith, 2012), by disrupting adequate fulfillment of one's core occupational role. From the perspective of justice theory, one can also argue that the lack of respect for one's occupational role implied by the assignment of illegitimate tasks is unfair and lack of fairness signals poor social standing (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Social devaluation is highly relevant for self-esteem. As suggested by sociometer theory (Leary, Tambor, Terdal, & Downs, 1995), the self-esteem system is particularly sensitive to social cues and monitors the environment for signals of devaluation (e.g., disrespect). When such signals are detected, self-esteem is lowered.

Trait and state self-esteem are related but distinct constructs. Trait self-esteem is rather stable (Kuster & Orth, 2013). This stability does not imply complete insensitivity to stressors, as part of it is likely due to the stability of people's environment. Nevertheless, one can assume that trait self-esteem is sensitive only to rather strong (stressful) experiences. By contrast, state self-esteem fluctuates within individuals across shorter time periods such as days, depending on daily events such as a success or failure at work (Dahlsgaard, Peterson, & Seligman, 2005), as well as negative feedback and social exclusion (Ferns & Meerabeau, 2009). As such, state self-esteem should be given distinct individualized research attention from global self-esteem (Brown & Marshall, 2006). Daily diary research is particularly well suited to examine the linkages between illegitimate tasks and state self-esteem as proposed in the SOS model. State self-esteem is included in both studies and is expected to be negatively related to illegitimate task experiences.

Hypothesis 1.1: Within individuals, illegitimate tasks will be negatively associated with state self-esteem.

Anger and depressive mood

Illegitimate tasks are postulated to communicate social devaluation to individuals in the workplace (e.g., Semmer et al., 2007). According to the SOS model, it is expected that negative discrete emotions such as anger or depressive

mood may be affected by such experiences. Prior research has established a negative relationship between constructs related to illegitimate tasks such as unfairness with negative emotions (Barclay, Skarlicki, & Pugh, 2005). In particular, anger and depressive mood are included in the present work (Study 2) to follow up on calls for research with these types of emotional responses (Semmer et al., 2015).

Anger and depressive mood are particularly important because negative emotional responses to job stressors such as these may in turn lead to more severe well-being decrements over time or retaliatory behaviors such as counterproductive work behavior or aggression (Fox & Spector, 1999). In fact, associations of illegitimate tasks have been found with counterproductive work behavior (Semmer et al., 2010) and with feelings of resentment (Semmer et al., 2015), but the potential role of negative emotions in the experience of illegitimate tasks is yet to be fully established. The current work offers one attempt to close this gap.

Anger is a strong emotion of annoyance or hostility and is common as a reaction to unfair treatment (Cohen-Charash & Spector, 2001). Because illegitimate tasks are characterized by unfairness in task assignments, anger therefore can be expected to emerge as a result of illegitimate tasks. Additionally, depressive mood may be experienced as a result of illegitimate tasks as sadness is an affective reaction to negative events, especially those associated with failing to be accepted and included socially (Baumeister & Leary, 1995). The social signals tied to illegitimate tasks convey devaluation by others. Thus, we hypothesize a positive relationship between illegitimate tasks and reports of anger and depressive mood.

Hypothesis 1.2 and 1.3: Within individuals, illegitimate tasks will be positively associated with anger (Hypothesis 1.2) and depressive mood (Hypothesis 1.3).

Job satisfaction

Job satisfaction is defined as the extent to which an individual likes or dislikes his or her job (Spector, 1997). It represents a summary evaluative judgment based on both affective experiences and cognitive beliefs about one's job (Weiss, 2002), and it is considered to be an integral part of well-being (Warr, 2007). In addition to being linked to self-esteem and discrete emotions, illegitimate tasks are expected to demonstrate a negative relationship with job satisfaction.

According to job characteristics theory, task characteristics affect job satisfaction (Hackman & Oldham, 1975). We expect that illegitimacy will be an important feature of a task that detracts from task significance, as illegitimate tasks are perceived as unnecessary and/or unreasonable. Such tasks should reduce experienced meaningfulness of one's work and thereby be related to job satisfaction. On the level of daily fluctuations, illegitimate tasks should induce negative affective reactions (Semmer et al., 2007) and thus constitute affective events. According to affective events theory (Weiss & Cropanzano, 1996), affective events are important factors influencing job satisfaction and thus could cause employees to reevaluate their jobs. In sum, this leads to the fourth hypothesis:

Hypothesis 1.4: Within individuals, illegitimate tasks will be negatively associated with job satisfaction.

Trait self-esteem as a moderator

The second goal of the present research is to explore the moderating role of a relevant individual difference factor, namely, trait self-esteem. As discussed previously, the self-esteem system is particularly reactive to signals of disrespect (Leary et al., 1995). However, the threat to self-esteem contained in disrespect does not actually lower self-esteem under all circumstances; people may be able to ward off the threat, for instance, by (re)appraising the situation in a less threatening way or by reminding themselves of their positive qualities or experiences (Gollwitzer, Marquardt, Scherer, & Fujita, 2013; Tesser, 2001). Trait self-esteem may be important in protecting against experienced degradations. Some researchers suggest that when individuals encounter situations that challenge their

identities (as we suggest illegitimate tasks do), trait self-esteem acts as a “reservoir of energy” to protect the individual from the distress associated with impediments to successful “self-verification” (Cast & Burke, 2002). Thus, trait self-esteem should help to protect against distress.

In fact, there is evidence to support these notions. Much of the work on trait self-esteem supports the notion that self-esteem can function as a protective resource when experiencing stressors (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Indeed, previous research has documented this with role-related stressors in particular. Jex and Elacqua (1999) found that role ambiguity’s link to depression was strongest for employees reporting low levels of self-esteem. In addition, some research has shown unfair treatment at work to relate to negative attitudes such as low organizational commitment for individuals with low (but not high) self-esteem (De Cremer, van Knippenberg, van Dijke, & Bos, 2004). Further, social stressors tend to be less detrimental to job satisfaction for individuals with high core self-evaluations (Harris, Harvey, & Kacmar, 2009), a personality composite that includes self-esteem.

Of particular importance, the buffering role of trait self-esteem appears to function on state self-esteem as well. For example, high trait level self-esteem has been found to mitigate the effects of social exclusion on state self-esteem (Nezlek, Kowalski, Leary, Blevins, & Holgate, 1997). In other words, compared to individuals with low self-esteem, individuals with high levels of self-esteem are less reactive to others’ signs of disapproval.

In sum, the theoretical and empirical work suggests that individuals with high levels of trait self-esteem are less vulnerable to threats from illegitimate tasks than those with low levels of trait self-esteem. Thus, the expectation is that high trait level self-esteem will function as a buffer between the experience of illegitimate tasks and the resulting negative outcomes.

Hypothesis 2: Within individuals, trait self-esteem will moderate the relationships of illegitimate tasks with anger, depressive mood, job satisfaction, and state self-esteem such that illegitimate tasks will be more strongly related to these measures of well-being when trait self-esteem is low rather than high.

Overview

Except for one single study (Pereira et al., 2014), this is the first effort to examine the daily experience of illegitimate tasks and their relationships to state-level outcomes, advancing our process-based knowledge of this phenomenon. These studies contribute to the literature by taking an intra-individual perspective. Both studies included in this effort use diary sampling, allowing us to capture day-to-day fluctuations in individuals’ experience of illegitimate tasks and their psychological states. Furthermore, this design relies less on retrospective recall of participants because measures are taken on a frequent time schedule each day and may thus render more accurate reports. This advanced sampling methodology adds to previous efforts by moving one step closer to causal inference (Bolger et al., 2003; Ohly et al., 2010).

In addition, this work expands the set of dependent variables known to be associated with illegitimate tasks. In both studies, we extend previous work by examining state self-esteem, specifically exploring state levels following illegitimate task experiences. In Study 2, we suggest emotional reactions such as state anger and depressive mood, as well as a state version of job satisfaction be added to the domain space of illegitimate tasks by demonstrating within-day and across-day relationships between these outcomes and illegitimate tasks.

Moreover, except for Kottwitz et al. (2013), who investigated perceived health as a moderator, this is the only study so far that examines boundary conditions of the association between illegitimate tasks and impaired well-being. More specifically, by focusing on inter-individual differences in trait self-esteem, we test whether the detrimental illegitimate tasks may be buffered by high trait self-esteem.

Study 1

The purpose of Study 1 was to examine the relationship between illegitimate tasks and state self-esteem (Hypothesis 2) and the moderating role of trait self-esteem (Hypothesis 2).

Method

Participants

Participants were 57 residents of a large city in Switzerland. The majority of participants were male (61 percent) and had a university degree (75 percent). Ages ranged from 18 to 52 years ($M = 31.4$, $SD = 7.1$). Participants worked for various organizations, on average 38.2 hours per week ($SD = 5.7$).

Procedure

Data were collected using daily diary methodology. Convenience sampling was used to recruit our participants by sending recruitment messages to personal and professional networks of the research team. In total, 67 of the 96 individuals approached agreed to participate in the study, a response rate of 70 percent. Ten participants (15 percent) were excluded because of missing data. The final sample comprised 57 individuals.

At the beginning of the study, participants were contacted by telephone to set up an in-person enrollment session. At this session, the investigators provided instructions. Demographics and trait self-esteem were measured. In the following week, the daily diary study started. All of the data were collected with paper and pencil surveys. On each day, participants completed their first daily diary in the morning, after waking up and their second diary in the evening before bed. Data were collected across 10 consecutive workdays.

Measures

Illegitimate tasks

Illegitimate tasks experienced during that particular workday were assessed with the evening diary, using the eight-item Bern illegitimate task scale (Semmer et al., 2015), adapted to capture daily experiences. Response options are on a five-point Likert scale (1 = *never*, 5 = *frequently*). An example item is “Today, how often did you have work tasks to take care of, which kept you wondering if they should be done by someone else?”.

State self-esteem

State self-esteem was assessed with three modified items from the Rosenberg self-esteem scale (Rosenberg, 1989). An item example is “At the moment, I feel I have a number of good qualities.” The format was on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). State self-esteem was measured in the morning and in the evening.

Trait self-esteem

Trait self-esteem was assessed using the 10-item Rosenberg self-esteem scale (Rosenberg, 1989). The format was on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). This scale was administered at the beginning of the study. Reliability estimates are found in Table 1.

Table 1. Descriptives statistics and bivariate correlations in Study 1

Level		<i>M</i>	<i>SD</i>	ICC	1	2	3	4	5	6	7
2	1. Gender	0.61	–	–	–	–	–	–	–	–	–
	2. Age	31.62	7.13	–	–.09*	–	–	–	–	–	–
	3. Trait self-esteem	4.03	0.58	–	–.07*	.10*	(.84)	–	–	–	–
	4. Aggregated illegitimate tasks	1.46	0.41	–	.22*	–.03	–.18*	–	–	–	–
1	5. Self-esteem morning	5.3	0.47	0.34	–.07	.17	.64	–.29	(.95)	–	–
	6. Self-esteem evening	5.32	0.55	0.41	–.06	.16	.58	–.33	.26	(.95)	–
	7. Daily illegitimate tasks	1.49	0.41	0.52	.18	.00	–.07	.73	.07	–.19	(.77)

N = 57. Gender coded such that male = 0 and female = 1, age measured in years; aggregated illegitimate tasks is the average reported daily illegitimate tasks across the study period. The reliability estimates are in parentheses on the diagonal. Reliability estimates for level 1 scales were calculated according to Nezlek (2011). *SD* for level 1 correlations is the within-person standard deviation; ICC, intraclass correlation (proportion of the between-person variance compared with the total variance). Within-person standard deviation and ICCs are based on variance estimates of unconditional (null) models (Nezlek, 2011). For level 2 correlations, **p* < .05; for level 1 correlations, coefficients > |.07| are significant at *p* < .05.

Demographics

Demographic information was collected at the beginning of the study including gender, age, job title and industry, hours worked per week, and education level.

Confirmatory factor analysis

To examine whether illegitimate tasks and state self-esteem are distinct constructs, we conducted multilevel confirmatory analyses using the program Mplus 7 (Muthén & Muthén, 2012). Results supported that the two measures reflect different constructs (Table 2, upper half).

Table 2. Fit of measurement models to test construct dimensionality

Model	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR _w	SRMR _b
Study 1							
One-factor model	209.58	10	.72	.45	.162	.136	.146
Two-factor model	7.75	8	1.00	1.00	<.001	.027	.018
Study 2							
Mid-day							
One-factor model ^a	–	–	–	–	–	–	–
Four-factor model	126.18	59 ^b	.98	.97	.037	.029	.061
Two-factor model	2333.74	72	.31	.14	.193	.242	.288
Evening							
One-factor model	1364.88	70	.62	.51	.142	.117	.231
Four-factor model	161.32	60	.97	.96	.043	.042	.039
Two-factor model	2592.37	72	.25	.07	.195	.279	.297

CFI, comparative fit index; TLI, Tucker–Lewis index; RMSEA, root mean square error of approximation; SRMR_w, standardized root mean residual, within-person; SRMR_b, standardized root mean residual, between-person.

In Study 1, we compared a two-factor model (illegitimate tasks and self-esteem, both measured in the evening) with a one-factor model. In study 2, we compared a four-factor model (illegitimate tasks, self-esteem, anger, and depressive mood, note that we omitted job satisfaction from the analyses because single items are not well suited for latent modeling) with a two-factor model (illegitimate tasks and well-being, consisting of self-esteem, anger, and depressive mood) and a one-factor model. For measures with more than three items, we used item parceling (Little, Rhemtulla, Gibson, & Schoemann, 2013).

^aModel did not converge.

^bBecause of issues with a non-positive correlations matrix, which were mainly due to negative estimates of residual variance of indicators with very small residual variances, we used additional constraints (i.e., residual variances set to zero). As consequence, the degrees of freedom vary between the same models.

Data analysis

The main focus of the analyses was on within-person relationships of daily illegitimate tasks and state self-esteem. Two measurements of the dependent variable, state self-esteem, were taken, one in the evening of each workday and one the following morning respective to that workday. To model change in the dependent variable, we controlled for its level in the morning of the same day for predicting evening state self-esteem and for its level of the preceding morning for predicting morning self-esteem. These predictors were group mean-centered, implying that the coefficients for these variables reflect a person being high or low (e.g., many or few illegitimate tasks) relative to his or her own mean for that variable across days. Thus, between-person variance in these variables was removed, and an interpretation of the results in terms of stable differences between persons can be ruled out. Average levels of illegitimate tasks, however, are neglected by group mean-centering. Therefore, to examine the role of the average level of illegitimate tasks on well-being, we additionally used the aggregated daily measures of illegitimate tasks as between-person variables, which were grand mean-centered.

We used random-effects hierarchical linear modeling (Bryk & Raudenbush, 1992) to test the within-subjects hypotheses. These models assume that both the intercepts and slopes vary across individuals. To test our first hypothesis (i.e., main effect of illegitimate tasks), we used illegitimate tasks, the preceding level of the dependent variable, and trait self-esteem as predictors of the subsequent level of the dependent variable (main effect models). Furthermore, to test our second hypothesis (i.e., moderating effects of trait self-esteem on relationships between illegitimate tasks and state self-esteem), we conducted additional analyses with trait self-esteem as a grand mean-centered predictor of both the intercept and the slope of illegitimate tasks (interaction models). Note that the coefficients for main effects did not change when interaction terms were entered.

Results

Levels 1 and 2 bivariate correlations are outlined in Table 1, and multilevel analyses (interaction models) are reported in Table 3. In accordance with Hypothesis 1, in main effects models, illegitimate tasks were related to state self-esteem within days. Specifically, illegitimate task experiences were negatively related to state self-esteem reported in the evening ($\gamma = -0.38$, $p < .05$), controlling for state self-esteem that morning. However, illegitimate task experiences on one workday did not relate to state self-esteem the following morning.

In our cross-level interaction model, illegitimate tasks interacted with trait self-esteem in the prediction of state self-esteem both in the evening ($\gamma = 0.45$, $p < .05$) and the following morning ($\gamma = 0.11$, $p < .05$, Table 4). We used methods proposed by Preacher, Curran, and Bauer (2006) to probe interactions and assess simple slope effects using conditional values of one standard deviation above and below the mean. Illegitimate tasks had a negative

Table 3. Effects of illegitimate tasks during the workday on state self-esteem in Study 1

Random effects	Evening self-esteem		Following morning self-esteem	
	Coefficient	SE	Coefficient	SE
Intercept	5.28*	0.06	5.29*	0.07
Trait self-esteem (TSE)	0.84*	0.11	0.86*	0.10
Aggregated illegitimate tasks	-0.64*	0.12	-0.43*	0.13
Morning self-esteem	0.19*	0.07	0.04	0.05
Daily illegitimate tasks (IT)	-0.38*	0.09	-0.03	0.04
TSE*IT	0.45*	0.17	0.11*	0.05

Aggregated illegitimate tasks = illegitimate tasks across the study period. * $p < .05$.

Table 4. Descriptives statistics and bivariate correlations between level 2 factors in Study 2

Level		<i>M</i>	<i>SD</i>	ICC	1	2	3	4	5
2	1. Gender	0.87	–	–	–	–	–	–	–
	2. Age	42.75	13.1	–	.19	–	–	–	–
	3. Trait self-esteem	4.28	0.55	–	–.17	–.18	(.75)	–	–
	4. Aggregated illegitimate tasks	2.45	0.75	–	.04	.14	–.24*	–	–
1	Morning	–	–	–	–	–	–	–	–
	5. Anger	1.22	0.44	0.26	.16	.00	–.02	.08	(.75)
	6. Depressive mood	1.21	0.44	0.42	–.04	.00	–.12	.07	.54
	7. Job satisfaction	3.86	0.49	0.74	.12	.00	.06	–.31	–.25
	8. Self-esteem	4.31	0.28	0.77	.10	.00	.29	–.08	–.17
	Mid-day	–	–	–	–	–	–	–	–
	9. Illegitimate tasks	2.40	0.58	0.58	.53	.00	–.37	.73	.05
	10. Anger	1.35	0.54	0.29	–.14	.00	–.09	.19	.18
	11. Depressive mood	1.18	0.30	0.64	.04	.00	–.11	.06	.12
	12. Job satisfaction	3.80	0.46	0.78	–.12	.00	–.07	–.29	–.06
	13. Self-esteem	4.31	0.30	0.75	.12	.00	.30	–.08	–.06
	Evening	–	–	–	–	–	–	–	–
	14. Illegitimate tasks	2.43	0.58	0.57	.38	.00	–.39	.78	.01
	15. Anger	1.35	0.56	0.29	–.07	.00	–.10	.15	.01
	16. Depressive mood	1.22	0.44	0.57	.05	.00	–.19	.11	–.05
	17. Job satisfaction	3.77	0.51	0.75	–.06	.00	.07	–.35	–.03
	18. Self-esteem	4.32	0.26	0.81	.12	.00	.27	–.08	.01
	Across the workday	–	–	–	–	–	–	–	–
	19. Illegitimate tasks	2.42	0.52	0.58	.67	.00	–.58	–	.02

N = 90. Gender coded such that male = 0 and female = 1, age measured in years. For level 2, aggregated illegitimate tasks are the average reported illegitimate tasks across the study period. The reliability estimates are on the diagonal.

^aJob satisfaction was measured with a single item, and thus internal consistency is not able to be calculated.

**p* < .05; for level 1, illegitimate tasks across the workday are the average of the mid-day and evening scores on illegitimate tasks and represent the score for illegitimate tasks across that entire workday. *SD* = within-person standard deviation; ICC = intraclass correlation (proportion of the between-person variance compared with the total variance). Standard deviation and ICCs are based on variance estimates of unconditional (null) models (Nezlek, 2011). Correlations represent within-person associations of the constructs of the same day and were calculated using hierarchical linear modeling (HLM) (Bryk & Raudenbush, 1992). Correlations greater than |.06| are significant at *p* < .05. Reliability estimates were calculated according to Nezlek (2011) and are within parentheses on the diagonal of the table.

relationship with state self-esteem in the evening among employees with low trait self-esteem ($\gamma = -0.59$, $p < .01$) but not among employees with high trait self-esteem ($\gamma = -0.07$, $p > .05$). This pattern of results supports Hypothesis 2. Further, employees with low trait self-esteem were responsive to illegitimate tasks from one day to the next, demonstrating a trend on state self-esteem the next morning but just missing the 5 percent limit ($\gamma = -0.10$, $p = .06$), which was absent among employees with high trait self-esteem ($\gamma = 0.03$, $p > .05$).

Discussion Study 1

Study 1 demonstrates that illegitimate tasks during the workday predicted lower state self-esteem that evening. Moreover, trait self-esteem interacted with illegitimate tasks in the prediction of state self-esteem both within days and across days. These results indicate that employees with low trait self-esteem appear to be more sensitive to illegitimate task episodes. Overall, results are in line with the SOS framework that illegitimate tasks would be an offense to self that can adversely affect self-esteem (Semmer et al., 2007), offering a foundation from which to examine if other well-being variables are related to illegitimate tasks.

Table 4. (Continued)

Level		6	7	8	9	10	11	12
2	1. Gender	–	–	–	–	–	–	–
	2. Age	–	–	–	–	–	–	–
	3. Trait self-esteem	–	–	–	–	–	–	–
	4. Aggregated illegitimate tasks	–	–	–	–	–	–	–
1	Morning	–	–	–	–	–	–	–
	5. Anger	–	–	–	–	–	–	–
	6. Depressive mood	(.85)	–	–	–	–	–	–
	7. Job satisfaction	–.17	– ^a	–	–	–	–	–
	8. Self-esteem	–.29	.29	(.96)	–	–	–	–
	Mid-day	–	–	–	–	–	–	–
	9. Illegitimate tasks	.03	–.01	–.06	(.92)	–	–	–
	10. Anger	.06	–.08	–.04	.37	(.80)	–	–
	11. Depressive mood	.21	–.12	–.12	.14	.46	(.82)	–
	12. Job satisfaction	–.05	.32	.13	–.22	–.37	–.29	– ^a
	13. Self-esteem	–.10	.18	.28	–.04	–.09	–.26	.18
	Evening	–	–	–	–	–	–	–
	14. Illegitimate tasks	.04	–.11	–.15	.48	.21	.15	–.21
	15. Anger	.01	–.07	–.12	.17	.35	.30	–.14
	16. Depressive mood	.09	–.10	–.20	.06	.20	.54	–.11
	17. Job satisfaction	.01	.15	.15	–.11	–.18	–.19	.22
	18. Self-esteem	.02	.10	.23	–.05	–.12	–.11	.22
	Across the workday	–	–	–	–	–	–	–
	19. Illegitimate tasks	.01	–.05	–.11	.91	.36	.14	–.25

Table 4. (Continued)

Level		13	14	15	16	17	18	19
2	1. Gender	–	–	–	–	–	–	–
	2. Age	–	–	–	–	–	–	–
	3. Trait self-esteem	–	–	–	–	–	–	–
	4. Aggregated illegitimate tasks	–	–	–	–	–	–	–
1	Morning	–	–	–	–	–	–	–
	5. Anger	–	–	–	–	–	–	–
	6. Depressive mood	–	–	–	–	–	–	–
	7. Job satisfaction	–	–	–	–	–	–	–
	8. Self-esteem	–	–	–	–	–	–	–
	Mid-day	–	–	–	–	–	–	–
	9. Illegitimate tasks	–	–	–	–	–	–	–
	10. Anger	–	–	–	–	–	–	–
	11. Depressive mood	–	–	–	–	–	–	–
	12. Job satisfaction	–	–	–	–	–	–	–
	13. Self-esteem	(.97)	–	–	–	–	–	–
	Evening	–	–	–	–	–	–	–
	14. Illegitimate tasks	–.06	(.92)	–	–	–	–	–
	15. Anger	–.02	.40	(.74)	–	–	–	–
	16. Depressive mood	–.10	.20	.28	(.92)	–	–	–
	17. Job satisfaction	.05	–.25	–.40	–.30	– ^a	–	–
	18. Self-esteem	.29	–.16	–.14	–.19	.25	(–.97)	–
	Across the workday	–	–	–	–	–	–	–
	19. Illegitimate tasks	–.03	.88	.34	.17	–.21	–.12	(.92)

Study 2

The purpose of Study 2 was threefold. First, we sought to replicate the findings from Study 1. Second, we wanted to explore well-being markers that may be associated with illegitimate task episodes but have yet to be examined. Third, Study 2 offers multiple measurements of illegitimate tasks each day to better separate the measurement of focal variables and to examine processes across days; however, we made no differential hypotheses in reference to precise time points. As such, Study 2 tests all predictions in Hypotheses 1 and 2.

Method

Participants

Data were collected using daily diary methodology, similar to Study 1. Participants were recruited via advertisements and flyers posted around a university campus community in the USA. Inclusion criteria included being 18 years old or older, working 35 or more hours per week, being fluent in English, and having tenure of at least one year at their current job. Individuals could express interest in the study by e-mail and were then scheduled for enrollment. Ninety individuals enrolled. Many were employed in administrative or staff positions at a local university, at a local Fortune-500 company, or in a hospital setting. Sixty-two percent worked in “education”, with the next highest category being from the “healthcare” industry (11 percent). The sample was mostly female (87 percent), with 88 percent having college education. Age ranged from 20 to 69 years ($M=42.8$, $SD=13.1$). Participants worked an average of 40.6 hours per week ($SD=5.6$). Participants received \$75 for completing the study.

Procedure

At the enrollment session, participants reported demographics and trait self-esteem. In the following week, the daily diary study started. On each workday, participants completed their first daily diary before starting their work shift, their second one mid-day of their work shift, and their third one after their shift was over. All of the data were collected through an online data collection server, which recorded the date and time of completion for each daily diary. This information was used to assess compliance with study procedures (described in the succeeding texts). Data were collected across 10 consecutive working days.

Measures

Illegitimate tasks

As in Study 1, illegitimate tasks were assessed with the Bern Illegitimate Task Scale (Semmer et al., 2015). Mid-day and evening assessment referred to illegitimate tasks experienced in the morning and afternoon hours, respectively.

State self-esteem

As in Study 1, state self-esteem was assessed with the Rosenberg Self-Esteem Scale (Rosenberg, 1989). Five items from this scale were included at each daily diary.

Anger and depressive mood

Anger and depressive mood were measured at each diary with three items each adapted from the Caplan, Cobb, French, Van Harrison, and Pinneau (1980) strain scale. Items are on a five-point scale (1 = *not at all*, 5 = *very much*).

Job satisfaction

Job satisfaction was assessed using one item from the job satisfaction scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). The selected item was adapted to read "At the moment, all in all, I am satisfied with my job." The format was a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The single item was measured at each daily diary.

Trait self-esteem

As in Study 1, Rosenberg's (1989) 10-item self-esteem scale was administered at the time 1 enrollment session. Reliability estimates are found in Table 4.

Demographics

Gender, age, tenure in the current job, hours worked per week, job title and industry, and education level were collected.

Confirmatory factor analysis

As in Study 1, we examined whether illegitimate tasks and the well-being indicators are distinct constructs. Results from multilevel confirmatory analyses supported that the measures reflect different constructs (Table 2, bottom half).

Data structure and quality

Of the 90 subjects, 75 identified their work schedules as being Monday through Friday, 9:00 AM–5:00 PM. Compliance was defined as follows: morning diaries must have been completed at 9:00 AM \pm 1 hour, mid-day diaries at 12:00 PM \pm 1.5 hours, and evening at 4:00 PM \pm 1.5 hours. Morning diaries served as a baseline of well-being, and therefore slightly more conservative criteria were used to reduce contamination of these measurements by workplace experiences. Furthermore, each diary was at least 1.5 hours apart from surrounding diary entries to be compliant. For the 15 employees reporting non-typical hours (e.g., hospital staff), diaries were examined individually and were evaluated on the spacing criteria only. Compliance was 96 percent, 95 percent, and 92 percent for the morning, mid-day, and evening diaries, respectively.

Data analysis

Data analysis procedures were the same as those described in Study 1. In addition to the mid-day and evening time points collected, the overall day-level experience of illegitimate tasks (the average amount of illegitimate tasks across the day created by averaging the mid-day and evening reports) was also used as a predictor and was group mean-centered. As in Study 1, the previous morning report of each dependent variable was entered into the model as a control variable.

Results

Bivariate correlations and intraclass correlations are in Table 4. Multi-level analyses including the cross-level interaction are in Table 5. Generally, supporting Hypothesis 1, results from main effects models indicated that illegitimate tasks were related to well-being within days. Specifically, illegitimate tasks across the day predicted evening values of state self-esteem ($\gamma = -0.05$, $p < .05$), anger ($\gamma = 0.31$, $p < .05$), depressive mood (trend, $\gamma = 0.09$, $p < .06$),

Table 5. Multi-level analyses from Study 2

		State self-esteem		Anger		Depressive mood		Job satisfaction	
		Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
		Mid-day							
IT in the morning	Intercept	4.31*	0.05	1.34*	0.04	1.18*	0.04	3.78*	0.08
	Trait self-esteem	0.54*	0.12	-0.02	0.06	-0.21*	0.11	-0.10	0.18
	Aggregated IT	-0.09	0.06	0.22*	0.05	0.10*	0.05	-0.18	0.03
	Outcome at morning	0.22*	0.05	0.16*	0.06	0.16*	0.05	0.28*	0.04
	IT morning	-0.03	0.02	0.24*	0.04	0.03	0.03	-0.18*	0.03
	Trait SE*IT morning	0.11**	0.06	0.03	0.07	0.02	0.05	0.05	0.07
		Evening							
IT in the afternoon	Intercept	4.31*	0.05	1.35*	0.04	1.23*	0.05	3.75*	0.09
	Trait self-esteem	0.55*	0.12	-0.02	0.08	-0.19	0.13	-0.13	0.19
	Aggregated IT	-0.10	0.06	0.19*	0.06	0.14*	0.06	-0.58*	0.12
	Outcome at morning	0.20*	0.06	0.01	0.07	0.14*	0.06	0.14*	0.06
	IT afternoon	-0.06*	0.02	0.33*	0.05	0.11*	0.04	-0.20*	0.04
	Trait SE*IT afternoon	-0.01	0.04	-0.03	0.08	0.02	0.04	-0.05	0.06
		Evening							
IT across the workday	Intercept	4.32*	0.05	1.35*	0.03	1.21*	0.05	3.75*	0.09
	Trait self-esteem	0.56*	0.09	-0.02	0.07	-0.18	0.13	-0.12	0.18
	Aggregated IT	-0.10	0.07	0.19*	0.06	0.15*	0.06	-0.58*	0.12
	Outcome at morning	0.21	0.05	0.01	0.06	0.09	0.06	0.16*	0.06
	IT day	-0.05*	0.02	0.31*	0.06	0.09**	0.05	-0.19*	0.06
	Trait SE*IT day	0.03	0.04	-0.06	0.10	0.03	0.06	-0.04	0.08
		Following morning							
IT across the workday	Intercept	4.32*	0.05	1.21*	0.03	1.21*	0.05	3.86*	0.09
	Trait self-esteem	0.53*	0.12	-0.01	0.04	-0.18	0.12	-0.04	0.17
	Aggregated IT	-0.10	0.07	0.10*	0.04	0.11	0.06	-0.42*	0.13
	Outcome at morning	0.13	0.07	-0.10*	0.05	-0.05	0.06	0.03	0.06
	IT previous day	-0.01	0.02	0.05	0.05	0.08*	0.04	-0.04	0.05
	Trait SE*IT day	0.06	0.04	-0.03	0.05	0.01	0.04	0.01	0.07

IT = illegitimate tasks; IT in the morning is the report at mid-day of morning illegitimate tasks; IT in the afternoon is the report at the evening of the afternoon illegitimate tasks; aggregated IT is the average reported illegitimate tasks across the study period; IT across the workday, also listed as "IT day", is the average of the mid-day and evening scores on illegitimate tasks and represents the score for illegitimate tasks across that entire workday; trait SE = trait self-esteem. * $p < .05$. ** $p < .10$.

and job satisfaction ($\gamma = -0.19$, $p < .05$). In addition, one cross-day relationship emerged, with illegitimate tasks across one workday predicting depressive mood the following morning ($\gamma = 0.09$, $p < .05$). With regard to shorter time frames, illegitimate tasks in the morning predicted anger ($\gamma = 0.24$, $p < .05$) and job satisfaction at mid-day ($\gamma = -0.18$, $p < .05$). Also, illegitimate tasks in the afternoon predicted anger ($\gamma = 0.33$, $p < .05$), depressive mood ($\gamma = 0.11$, $p < .05$), job satisfaction ($\gamma = -0.20$, $p < .05$), and state self-esteem in the evening ($\gamma = -0.06$, $p < .05$).

Hypothesis 2 It stated that trait self-esteem would moderate the relationship between illegitimate tasks and well-being such that illegitimate tasks would be more strongly related to employee well-being when trait level self-esteem is low rather than high. The interaction coefficient was not significant.

Study 2 Discussion

Results of Study 2 replicated the main effect finding in Study 1, with illegitimate tasks across the workday predicting lower state self-esteem in the evening. Furthermore, illegitimate tasks in the afternoon predicted state self-esteem in the evening. Study 2's results went beyond Study 1's findings in revealing relationships of illegitimate task episodes with employee anger, depressive mood, and job satisfaction within the same workday. An across-day relationship emerged only for depressive mood. Together, the results of both studies demonstrate that illegitimate tasks appear to have meaningful links to short-term fluctuations in employee well-being.

However, the interactive effect between trait self-esteem and illegitimate tasks in predicting state self-esteem was not reproduced in Study 2. Furthermore, we tested the postulated buffering role of trait self-esteem for all relationships. However, no significant interaction effects emerged in Study 2. Thus, trait self-esteem does not seem to be a pervasive shield against the psychological strains that may result from illegitimate tasks; if it exists, it may be confined to state self-esteem, for which a significant effect was found in Study 1, and a similar, albeit not significant, pattern in Study 2.

General Discussion

The two studies reported here have four common foci. First, both studies investigated the associations of a new stressor concept, illegitimate tasks, with well-being. Second, both studies employed within-person analyses, demonstrating relationships in terms of an individual's daily fluctuations in illegitimate tasks. Third, both studies focused on state self-esteem, an outcome especially pertinent for illegitimate tasks according to the underlying theory (Semmer et al., 2007). Fourth, both studies examined the moderating role of trait self-esteem.

With regard to state self-esteem, both studies indicated that within days, illegitimate task episodes are related to state self-esteem. The finding that state self-esteem is sensitive to illegitimate tasks is in line with the SOS model (Semmer et al., 2007) and with the relevance of professional roles for employee identity (Ashforth, 2001; Thoits, 1991). Because preserving self-esteem is an important human goal (e.g., Leary et al., 1995), stressors representing threats to such goals such as illegitimate tasks have the capability to degrade self-esteem (Semmer et al., 2007; Thoits, 1991). In both studies, illegitimate tasks throughout the day predicted state self-esteem in the evening, but these links did not carry over into the next day, suggesting that they tend to be rather immediate and short-lived. In Study 2, which allowed analyzing very short-term relationships, it was illegitimate tasks reported for the afternoon that predicted state self-esteem in the evening, whereas morning illegitimate tasks did not predict self-esteem at mid-day. This finding is intriguing because it suggests that illegitimate tasks may become more stressful as the workday progresses. A possible explanation for this may be fatigue building up throughout the workday, resulting in diminished resources and thus greater vulnerability later in the day.

Note that there was a significant interaction in Study 1, in that the link between illegitimate tasks and state self-esteem carried over on state self-esteem the next morning for those who were (comparatively) low in trait self-esteem. This preliminary evidence in Study 1 for the moderating role of trait self-esteem indicates effects may be constrained to the most vulnerable participants, that is, those with relatively low trait self-esteem. However, Study 2 failed to replicate this effect. Although we hypothesized the interactive effect in both samples, the protective effect of trait self-esteem only in the Swiss sample could indicate there are cultural factors at play that should be investigated further. Although not entirely consistent, overall, these results make a rather promising case for the link between illegitimate tasks and state self-esteem.

With regard to anger, results indicated that illegitimate tasks predicted anger consistently across the day, with a significant relationship found at every measurement occasion. Our data are in line with previous work showing that events that are both social and unflattering can initiate anger (Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011). However, it appears that overnight, employees are able to recover from their anger, as no significant relationship

between illegitimate tasks and anger was found from one day to the next. This result provides further detail about the potential transitory response of this outcome.

The relationship between illegitimate tasks and depressive mood was not significant for illegitimate tasks reported for the morning predicting depressive mood at noon. However, illegitimate tasks experienced in the afternoon were significantly related to evening depressive mood; illegitimate tasks throughout the day were marginally significantly related to evening depressive mood. Interestingly, depressive mood was unique in that the relationship did not dissipate overnight. Employees who experienced high levels of illegitimate tasks during the workday had more depressive symptoms at the start of the following workday. In other words, an employee who experienced higher than usual illegitimate tasks felt comparatively more depressed at the start of the next day. Depressive symptoms tend to be routed in persisting cognitive processes (Beck, Rush, Shaw, & Emery, 1979; Feliciano, Segal, & Vair, 2011). The cognitive processing involved with developing a depressed mood state may explain why the relationships between illegitimate tasks and depressive mood endure to following days (cf. the concept of “perseverative cognitions”, Brosschot, Gerin, & Thayer, 2006).

In addition, the results of Study 2 demonstrated a consistent relationship between illegitimate task episodes and lower job satisfaction within a day. All measurement occasions produced this result, indicating that job satisfaction may be particularly sensitive to illegitimate tasks. However, illegitimate tasks did not predict job satisfaction across days, suggesting that the relationship between illegitimate tasks and job satisfaction attitudes dissipates relatively quickly.

Of note is that the main effect finding from Study 1 was replicated in Study 2 despite large differences in the level of illegitimate tasks, with means reported by the US sample being nearly two standard deviations higher than that from Switzerland. This result is interesting in itself and deserves further study as it is possible that culture may influence the likelihood to perceive tasks as illegitimate. Methodologically, it shows that correlational findings reported do not seem to depend on mean levels of illegitimate tasks, indicating homoscedasticity. Thus, the correlations with the illegitimate tasks scale seem to be robust to restricted response range.

Theoretical implications

These findings indicate several important theoretical implications. First, the relationship between illegitimate task episodes and state self-esteem was quite consistent across the two studies, supporting the propositions in the SOS framework (Semmer et al., 2007). Next, within the workday, illegitimate tasks were most consistently related to anger and job satisfaction, with illegitimate tasks predicting these factors consistently across occasions. This offers the plausibility of anger or job dissatisfaction as a pathway by which illegitimate tasks influence negative work behaviors such as counterproductive work behavior (Fox & Spector, 2006).

Furthermore, illegitimate tasks may have unique *dynamic* relationships with well-being markers. For example, depressive mood displayed a unique pattern, with main effects carrying over from one day to the next. Given that ample variance in mood can be accounted for by nightly sleep (Wong et al., 2012) and off-job activities (van Hooff, Geurts, Beckers, & Kompier, 2011), evidence that illegitimate tasks the previous day relate to the following morning’s depressive mood state is remarkable. This may be due to cognitive processes involved with generating a depressed mood. Having negative thoughts about oneself and having a negative view of one’s environment are two central factors in depression (Gonca & Savasir, 2001). Thus, while not directly tested here, it can be speculated that negative thoughts and degradations in state self-esteem that arise from illegitimate tasks may ignite a set of cognitive processes that lead to a depressed mood. The pattern in our data (main effects on separate days) underscores the potential for illegitimate tasks to not only relate to immediate states of emotion but also emotion over time.

Practical implications

These results suggest that managers should make efforts to be aware of the potential for certain kinds of tasks to be perceived as illegitimate. Undoubtedly, managers must focus on accomplishing necessary work. However, what

these data imply is that managers should also consider what their assignments communicate. Overt situations of humiliation or indignity are typically easy to recognize and are more readily avoidable or remedied when identified. However, we suggest that tasks that are not explicitly offensive may also carry negative consequences. Illegitimate tasks may result from subtleties such as oversights in decision-making, organizational inefficiencies, or assumptions about appropriate task absorption and thus require more diligent awareness to prevent. Encouraging feedback and fostering communication between leaders and subordinates may be one way to identify potential areas for change.

In addition, open communication from management about role expectations and boundaries is important. Being clear about professional roles may help prevent confusion about what can and cannot be reasonably expected of an employee filling that role. Further, when illegitimate task seems unavoidable, explaining the rationale for certain employees to take such tasks may reduce the threat to employees' self-esteem by demonstrating a level of respect and thought, as explanations reduce the negative impacts of injustices (Cropanzano et al., 2001). In addition to the short-term links found in the current work, ongoing experience of illegitimate tasks at work is associated with lower job satisfaction (Stocker et al., 2010), burnout (Semmer et al., 2015), higher cortisol levels (Kottwitz et al., 2013), and more counterproductive work behavior (Semmer et al., 2010). Thus, managers should make effort to be aware of such task assignments both in isolation and in an ongoing context.

Limitations and future directions

With regards to limitations, data were self-reported, raising question as to how common method bias might have affected results. However, by controlling for the dependent variable in the morning, the chance of obtaining significant results is diminished if effects were mainly due to common method variance. Also, method variance is unlikely to affect results of moderator tests or analyses with several predictors, which was the case for our multilevel analyses (Siemsen, Roth, & Oliveira, 2010). However, we cannot preclude that self-report induced participants to focus on illegitimate tasks at work to a greater extent than they would have otherwise. Future research may be served well to use multiple-source reports.

Moreover, while the current methods are substantially better equipped to offer insight into causal effects than cross-sectional designs, they are still limited in fully establishing causal mechanisms. Incorrect specification of the timing of causal effects (e.g., how long it takes illegitimate tasks to produce changes in well-being) remains a possibility, as does the possibility of third variables, which co-occur with illegitimate tasks, driving the relationship. These problems arise specifically because illegitimate tasks and well-being were measured together at each diary. However, the dependent variables measured the next morning do not suffer from problems of concurrent measurement and still yielded a significant interactive effect (self-esteem, Study 1) and a significant main effect (depressive mood, Study 2). Thus, it seems unlikely that concurrent measurement is responsible for the effects we found.

Future research should continue to expand upon the outcomes associated with this stressor to better establish its network of relevant outcomes such as behaviors and leader perceptions. Most importantly, however, more attention should be given to the identity-related factors that are a central tenet of the underlying theory. We did not directly test threats to identity in the current studies, rather, we tested hypotheses that we derived from our theoretical assumptions. Future research should, therefore, focus more strongly on appraisal processes, assessing to what extent people do feel stressed and to what extent these feelings are related to identity-threats. Furthermore, additional hypotheses may be derived from the SOS concept, which could provide indirect tests for the underlying theory. For example, one's level of work centrality (the degree of importance of work, Walsh & Gordon, 2008) should be especially relevant to the function of illegitimate tasks, as employees with high work centrality should be more sensitive to role violations. Also, one could measure the degree to which participants identify with their specific job and test if this identification acts as a moderator, as the theory would suggest. Such research could shed more light on the underlying process by which illegitimate tasks relate to employee well-being outcomes.

Like stressors in general (Lazarus, 1999), illegitimate tasks imply stress only via personal appraisal; yet they are not totally idiosyncratic. Thus, some professions have created special terms for illegitimate tasks (e.g., “non-nursing activities”, Sabo, 1990). Investigating the level of agreement between different members of the same occupation therefore seems warranted, and this applies to supervisors’ perceptions as well.

Illegitimate tasks may seem insignificant from an outsider’s perspective, but we have shown these tasks have implications for employees’ sense of value and well-being. Illegitimate task assignments can signal degradation in social value and damage one’s holistic sense of self. Our studies demonstrate that illegitimate tasks have a daily link to employees’ self-esteem, emotions, and job satisfaction and deserve the attention of academics and practitioners alike.

Concluding remarks

Illegitimate tasks are a rather new construct. As is true with many constructs, the theory behind them is much richer and contains more facets and assumptions about the processes involved than can be investigated in one or two single studies. There is need for more research to establish and refine the processes through which illegitimate tasks affect well-being, for whom and under what conditions. However, our studies have added some important elements, most notably with regard to illegitimate tasks predicting state self-esteem. Together with prior work, our investigations certainly suggest that the concept of illegitimate tasks as a stressor is promising and that conducting additional research is worthwhile undertaking.

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References

- Alicke, M., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology, 20*, 1–48.
- Ashforth, B. E. (2001). *Role transitions in organizational life: An identity-based perspective*. Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.
- Ashforth, B. E., & Kreiner, G. E. (1999). “How can you do it?”: Dirty work and the challenge of constructing a positive identity. *Academy of Management Review, 24*, 413–434.
- Barclay, L. J., Skarlicki, D. P., & Pugh, S. D. (2005). Exploring the role of emotions in injustice perceptions and retaliation. *Journal of Applied Psychology, 90*(4), 629–643.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. DOI:10.1037/0033-2909.117.3.497.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: The Guilford Press.
- Beehr, T. A., & Glazer, S. (2005). Organizational role stress. In J. Barling, E. K. Kelloway, & M. R. Frone (Eds.), *Handbook of work stress* (pp. 7–33). Thousand Oaks, CA: Sage.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology, 54*, 579–616. DOI:10.1146/annurev.psych.54.101601.145030.
- Brosschot, J., Gerin, W., & Thayer, J. (2006). The perseverative cognition hypothesis: A review of worry, prolonged stress-related physiological activation, and health. *Journal of Psychosomatic Research, 60*, 113–124.
- Brown, J. D., & Marshall, M. A. (2006). The three faces of self-esteem. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives* (pp. 4–9). New York, NY, US: Psychology Press.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA US: Sage Publications, Inc.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor. Ann Arbor: University of Michigan.
- Caplan, R. D., Cobb, S., French, J. R. P., Van Harrison, R., & Pinneau, S. R. (1980). *Job demands and worker health*. Ann Arbor: University of Michigan.
- Cast, A., & Burke, P. (2002). A theory of self-esteem. *Social Forces, 80*(3), 1041–1068.
- Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes, 86*(2), 278–321.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior, 58*, 164–209.
- Dahlsgaard, K., Peterson, C., & Seligman, M. E. P. (2005). Shared virtue: The convergence of valued human strengths across culture and history. *Review of General Psychology, 9*, 203–213.
- Dalal, R. S., Bhave, D. P., & Fiset, J. (2014). Within-person variability in job performance: A theoretical review and research agenda. *Journal of Management, 40*, 1396–1436.
- De Cremer, D., van Knippenberg, D., van Dijke, M., & Bos, A. E. R. (2004). How self-relevant is fair treatment? Social self-esteem moderates interactional justice effects. *Social Justice Research, 17*(4), 407–419. DOI:10.1007/s11211-004-2059-x.
- Feliciano, L., Segal, D. L., & Vair, C. L. (2011). Major depressive disorder. In K. Sorocco, & S. Lauderdale (Eds.), *Cognitive behavior therapy with older adults: Innovations across care settings* (pp. 31–64). New York, NY US: Springer Publishing Co.
- Ferns, T., & Meerabeau, E. (2009). Reporting behaviours of nursing students who have experienced verbal abuse. *Journal Of Advanced Nursing, 65*(12), 2678–2688. DOI:10.1111/j.1365-2648.2009.05114.x.
- Fox, S., & Spector, P. E. (1999). A model of work frustration-aggression. *Journal of Organizational Behavior, 20*(6), 915–931.
- Fox, S., & Spector, P. E. (2006). The many roles of control in a stressor-emotion theory of counterproductive work behavior. In P. L. Perrewé & D. C. Ganster (Eds.), *Research in occupational stress and well-being* (Vol. 5, pp. 171–201). Greenwich, CT: JAI.
- Gollwitzer, P. M., Marquardt, M. K., Scherer, M., & Fujita, K. (2013). Identity goal threats: Engaging in distinct compensatory efforts. *Social Psychological and Personality Science, 4*, 555–562.
- Gonca, S., & Savasir, I. (2001). The relationship between interpersonal schemas and depressive symptomatology. *Journal of Counseling Psychology, 48*, 359–364.
- Hackman, J., & Oldham, G. R. (1975). *Work redesign*. Reading, MA: Addison-Wesley.
- Harris, K. J., Harvey, P., & Kacmar, K. M. (2009). Do social stressors impact everyone equally? An examination of the moderating impact of core self-evaluations. *Journal of Business Psychology, 24*(2), 153–164. DOI:10.1007/s10869-009-9096-2.
- Jex, S. M., & Elacqua, T. C. (1999). Self-esteem as a moderator: A comparison of global and organization-based measures. *Journal of Occupational and Organizational Psychology, 72*, 71–81.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92.

- Kottwitz, M. U., Meier, L. L., Jacobshagen, N., Kälin, W., Elfering, A., Hennig, J., et al. (2013). Illegitimate tasks associated with higher cortisol levels among male employees when subjective health is relatively low: An intra-individual analysis. *Scandinavian Journal of Work, Environment and Health*, 39, 310–318. DOI:10.5271/sjweh.3334.
- Kuster, F., & Orth, U. (2013). The long-term stability of self-esteem: Its time-dependent decay and nonzero asymptote. *Personality and Social Psychology Bulletin*, 39, 677–690.
- Landsbergis, P. A., Schnall, P. L., Belkic, K. L., Schwartz, J., Pickering, T. G., & Baker, D. (2001). Work stressors and cardiovascular disease. *Work: Journal of Prevention, Assessment & Rehabilitation*, 17(3), 191–208.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. London: Springer.
- Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, 8(3), 518–530.
- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one. *Psychological Methods*, 18, 285–300.
- Liu, C., Spector, P. E., & Shi, L. (2007). Cross-national job stress: A quantitative and qualitative study. *Journal of Organizational Behavior*, 28(2), 209–239.
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus user's guide* (7th edn.). Los Angeles, CA: Muthén & Muthén.
- Nezlek, J. B. (2011). *Multilevel modeling for social and personality psychology*. London, UK: Sage.
- Nezlek, J. B., Kowalski, R. M., Leary, M. R., Blevins, T., & Holgate, S. (1997). Personality moderator of reactions to interpersonal rejection: Depression and trait self-esteem. *Personality and Social Psychology Bulletin*, 23, 1235–1244.
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology*, 9, 79–93. DOI:10.1027/1866-5888/a000009.
- Oyserman, D., Elmore, K., & Smith, G. (2012). Self, self-concept, and identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 69–104). New York: Guilford.
- Pereira, D., Semmer, N. K., & Elfering, A. (2014). Illegitimate tasks and sleep quality: An ambulatory study. *Stress and Health*, 30, 209–221.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437–448.
- Rosen, C. C., Chang, C.-H., Djurdjevic, E., & Eatough, E. (2010). Occupational stressors and job performance: An updated review and recommendations. In P. L. Perrewé, & D. C. Ganster (Eds.), *New developments in theoretical and conceptual approaches to job stress* (pp. 1–60). Bingley United Kingdom: Emerald Group Publishing.
- Rosenberg, M. (1989). *Society and the adolescent self-image* (rev. ed.). Middletown, CT England: Wesleyan University Press.
- Sabo, K. (1990). Protecting the professional role. A study to review non-nursing activities and recommendations for change. *Canadian Journal of Nursing Administration*, 3, 15–18.
- Semmer, N. K. (2000). Control at work: Issues of specificity, generality, and legitimacy. In W. J. Perrig, & A. Grob (Eds.), *Control of human behavior, mental processes, and consciousness* (pp. 555–574). Mahwah, NJ: Erlbaum.
- Semmer, N. K., & Beehr, T. A. (2014). Control and the social aspects of work. In Peeters, M. C. W., De Jonge, J., & Taris, T. (Eds.), *An introduction to contemporary work psychology*. Wiley Blackwell: Chichester, UK.
- Semmer, N. K., Jacobshagen, N., & Meier, L. L. (2006). Arbeit und (mangelnde) Wertschätzung [Work and (lack of) appreciation]. *Wirtschaftspsychologie*, 8, 87–95.
- Semmer, N., Jacobshagen, N., Meier, L., & Elfering, A. (2007). Occupational stress research: The “stress-as-offense-to-self” perspective. In J. Houdmont, & S. McIntyre (Eds.), *Occupational health psychology: European perspectives on research, education and practice* (Vol. 2, pp. 43–60). Castelo da Maia, Portugal: ISMAI Publishing.
- Semmer, N. K., Jacobshagen, N., Meier, L. L., Elfering, A., Beehr, T. A., Kälin, W., et al. (2015). Illegitimate tasks as a source of work stress. *Work & Stress*, 29(1), 32–56.
- Semmer, N. K., McGrath, J. E., & Beehr, T. A. (2005). Conceptual issues in research on stress and health. In Cooper, C. L. (Ed.), *Handbook of stress and health* (2nd ed., pp. 1–43). New York: CRC Press.
- Semmer, N. K., Tschann, F., Meier, L. L., Facchin, S., & Jacobshagen, N. (2010). Illegitimate tasks and counterproductive work behavior. *Applied Psychology: An International Review*, 59(1), 70–96. DOI:10.1111/j.1464-0597.2009.00416.x.
- Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13(3), 456–476. DOI:10.1177/1094428109351241.
- Sonnentag, S., & Frese, M. (2013). Stress in organizations. In N. W. Schmitt, & S. Highhouse (Eds.), *Industrial and organizational psychology* (pp. 560–592). Hoboken, NJ: Wiley.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. In C. L. Cooper, & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology: 1992* (pp. 123–151). West Sussex, UK: John Wiley.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA, US: Sage Publications, Inc.

- Stocker, D., Jacobshagen, N., Semmer, N. K., & Annen, H. (2010). Appreciation at work in the Swiss Armed Forces. *Swiss Journal of Psychology, 68*, 117–124.
- Tesser, A. (2001). On the plasticity of self-defense. *Current Directions in Psychological Science, 10*, 66–69.
- Thoits, P. A. (1991). On merging identity theory and stress research. *Social Psychology Quarterly, 54*(2), 101–112. DOI:10.2307/2786929.
- Thomaes, S., Stegge, H., Olthof, T., Bushman, B. J., & Nezlek, J. B. (2011). Turning shame inside-out: “Humiliated fury” in young adolescents. *Emotion, 11*(4), 786–793. DOI:10.1037/a0023403.
- van Hooff, M. L. M., Geurts, S. A. E., Beckers, D. G. J., & Kompier, M. A. J. (2011). Daily recovery from work: The role of activities, effort and pleasure. *Work & Stress, 25*, 55–74.
- Walsh, K., & Gordon, J. R. (2008). Creating an individual work identity. *Human Resource Management Review, 18*(1), 46–61.
- Warr, P. (2007). *Work, happiness, and unhappiness*. Mahwah, NJ: Lawrence Erlbaum.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review, 12*, 173–194.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. *Research in Organizational Behavior, 18*, 1–74.
- Wong, M., Lau, E., Wan, J., Cheung, S., Hui, C., & Mok, D. (2012). The interplay between sleep and mood in predicting academic functioning, physical health and psychological health: A longitudinal study. *Journal of Psychosomatic Research, 74*(4), 271–271.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management, 14*(2), 121–141. DOI:10.1037/1072-5245.14.2.121.