

Exploring Different Forms of Job (Dis)Satisfaction and Their Relationship with Well-Being,  
Motivation and Performance

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## Abstract

Job satisfaction is often treated as a one-dimensional construct. In contrast, Bruggemann (1974) postulated six distinct forms of (dis)satisfaction: four types of satisfaction (*progressive, stabilized, resigned, pseudo*) and two types of dissatisfaction (*constructive, fixated*). Despite her theory's practical relevance, few researchers have explored its assumptions or applications. The current study aimed to characterize a German-speaking employee sample ( $n=892$ ) according to Bruggemann's theory using mixture modeling. We investigated stability of the (dis)satisfaction forms over a five-month period, as well as their relationship with well-being, motivation and (self-reported) performance. We found latent clusters corresponding to most Bruggemann types, though no distinction between progressive and stabilized satisfaction was possible. While cluster membership varied over time, some clusters (e.g., resigned satisfaction) were more stable than others (e.g., constructive dissatisfaction). Overall satisfaction level explained 25-51% variance in well-being and motivation, and 13-16% variance in performance. Including forms of satisfaction improved cross-sectional prediction by 2-6% explained variance. Results suggest that unfavorable consequences of job dissatisfaction may be limited to fixated – not constructive – dissatisfaction, though no consistent longitudinal effects emerged. We argue that exploring qualitative differences in job satisfaction promotes a more nuanced and potentially useful understanding of the relationship between satisfaction and work outcomes.

*Keywords:* job satisfaction, Bruggemann, well-being, job performance, job attitudes, organizational psychology, Germany

### Introduction

Job satisfaction is one of the most prevalent topics in work and organizational psychology research. Numerous empirical studies and meta-analyses explore the relationship between job satisfaction and other work-related predictors or outcomes (e.g., Judge, Heller, & Mount, 2002; Judge, Thoresen, Bono, & Patton, 2001), while the majority of organizations regularly survey their employees with regard to satisfaction at work (e.g., Wiley, 2010). In general, these studies implicitly or explicitly assume that job satisfaction is a single construct lending itself to unidimensional quantification; very little research focusses on possible variation in the quality of job satisfaction. Yet the idea of differences in the quality of individuals' satisfaction with their working environment is not only intuitively attractive, it is also indirectly bolstered by findings from standard job satisfaction research. For instance, the fifth European Working Conditions Survey revealed that, on average, over 80% of employees in Europe reported being "very satisfied" or "satisfied" (Eurofound, 2012). At the same time, more than one out of ten of these (very) satisfied employees indicated that they would *not* want to do the same job at the age of 60 (Eurofound, 2012). While this finding may echo changing expectations about lifetime career trajectories (e.g., Sullivan & Arthur, 2006) or job security in general (e.g., Hellgren, Sverke, & Isaksson, 1999), it also implies that job satisfaction can mean different things to different people. Some employees seem to be satisfied with little wish for change, while others predict a period in the future where their current jobs will no longer fulfill their needs (cf. Brown, Charlwood, & Spencer, 2012). In other words, while employees may evaluate their job satisfaction similarly on a one-dimensional (quantitative) scale, the quality of their satisfaction may differ considerably. The following study set out to explore this idea on the basis of Agnes Bruggemann's (1974, 1976) theory of qualitative job (dis)satisfaction types.

***Quantity versus Quality in Organizational Research***

The question of quantitative versus qualitative construct distinctions (not to be confused with qualitative versus quantitative data per se) is one which has been particularly fruitful for organizational psychology research in recent years. One prime example of a central organizational construct whose redefinition in qualitative terms has stimulated relevant research is that of job insecurity. The recognition that job insecurity can refer not only to the likelihood of keeping a position but also to lack of stability in important job characteristics (Greenhalgh & Rosenblatt, 1984) has led researchers to explore differing effects of these “quantitative” versus “qualitative” types of insecurity (Hellgren et al., 1999). Empirical evidence suggests that both types of job insecurity are independent and equally important predictors for a variety of job outcomes (De Witte et al., 2010), possibly with differential importance for health-related versus attitudinal criteria (Hellgren et al., 1999). Similar shifts from quantitative to qualitative conceptualization have also occurred on the outcome level itself, for instance in the case of employee turnover, organizational commitment, or motivation. Employee turnover, measured as a dichotomous outcome variable (leave/stay), has long been a relevant organizational outcome (e.g., Mobley, Griffeth, Hand, & Meglino, 1979). Yet recent approaches have placed an emphasis on *type* of (non)turnover, noting that “reluctant stayers” or “reluctant leavers” may differ in fundamental dimensions from “enthusiastic” stayers and leavers (Hom, Mitchell, Lee, & Griffeth, 2012). This allows researchers to generate more specific and informative hypotheses about predictor-outcome relationships by taking turnover type into consideration. In the case of organizational commitment, the qualitative distinction between affective, normative, and continuance commitment has also become well-established, and has already shown itself to be useful both in predicting further outcomes and in providing more nuanced criteria (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Similarly, since the introduction of self-

determination theory, researchers typically consider qualitatively different types when studying work motivation (e.g., intrinsic, introjected, extrinsic, etc.; Gagné & Deci, 2005; Ryan & Deci, 2000).

The question of a qualitative versus quantitative focus in construct definition is also strongly linked – though not synonymous – with the recently revived debate of variable-centered versus person-centered approaches to (quantitative) data analysis (e.g., Meyer, Stanley, & Vandenberg, 2013; Morin, Morizot, Boudrias, & Madore, 2011; Wang & Hanges, 2011). The roots of this debate can be seen in fundamental discussions of ipsative versus normative analysis (i.e., approaches oriented towards within-subject versus between-subject comparisons; Boverman, 1962), but it has received greater attention and immediate practical relevance through the ease with which appropriate analyses can now be performed using modern software (Meyer et al., 2013). While the variable-centered approach focuses on relationships between variables across the whole sample, the person-centered approach is more interested in identifying subgroups for which those relationships might vary. One advantage of the person-centered approach is that it can identify combinations of variables that are theoretically or empirically relevant in predicting outcomes without recourse to a full variable interaction model. This increases statistical power of analyses while also facilitating interpretation of results and encouraging a more holistic view of variable relationships (Meyer et al., 2013). Though some of the qualitatively focused organizational psychology distinctions mentioned above (i.e., types of job insecurity or organizational commitment) are variable-centered, others – like attempts to define employee turnover types – are clearly person-centered. Some concepts, like the motivation types defined through self-determination theory, can be approached from either a variable-centered or a person-centered perspective. In fact, the boundaries between variable-centered and person-centered approaches are flexible. For instance, the organizational commitment literature has recently elaborated on the

affective/ normative/ continuance distinction by identifying subgroups of individuals showing different profiles of these commitment types (Meyer et al., 2013).

Given these trends, it is surprising that there have been so few parallel developments in the field of job satisfaction. In fact, Bruggemann (1974, 1976) proposed a process model of job satisfaction including six qualitatively different forms of (dis)satisfaction more than 40 years ago. To date, however, her model has been rarely considered in international research. Yet taking such qualitative differences in job satisfaction into account might help explain ostensibly contradictory findings based on one-dimensional job satisfaction measures. Using a person-centered approach could reveal relevant interactions and encourage a more nuanced, holistic view of job satisfaction. Expanding the definition of job satisfaction to include qualitative as well as quantitative differences may also help improve prediction of criterion variables such as well-being, attitudes, or performance (e.g., Judge et al., 2001).

### ***Bruggemann's Process Model of Job Satisfaction***

Bruggemann's basic assumption is that a person's job satisfaction or dissatisfaction is not static but the dynamic result of a continual adjustment process (cf. Figure 1): (1) This process is (re)initiated when individuals compare their current job situation with their personal aspirations. A fit between the perceived and the desired state leads to stabilizing satisfaction, a misfit to indistinct dissatisfaction. (2) Individuals then either maintain or change their level of aspiration. If they maintain their aspiration level, stabilizing satisfaction evolves into *stabilized satisfaction*; if individuals increase their aspirations (e.g., seeking new possibilities or personal growth), stabilizing satisfaction becomes *progressive satisfaction*. Indistinctly dissatisfied individuals can also lower their aspirations in order to achieve a form of *resigned satisfaction*. (3) Indistinctly dissatisfied individuals who maintain their level of aspiration can have different approaches to solving the misfit problem. If indistinctly dissatisfied employees distort or deny their perception of the actual situation, they may

develop *pseudo satisfaction*. In contrast, if they actively try to change the situation, they will show *constructive dissatisfaction*. On the other hand, if employees do not make any problem-solving attempts, *fixated dissatisfaction* will emerge.

(Figure 1 about here)

Overall, Bruggemann's theory includes several elements which have been elaborated in more modern theories. The initial process of comparison between the actual and ideal work situation bears great resemblance to person-environment (P-E) fit approaches, which have generated distinct fit concepts such as fit between personal needs and environmental satisfaction of those needs (i.e. needs-supply fit) or fit between environmental demands and personal abilities (i.e., demands-abilities fit; Edwards, 2008). Yet unlike most theories of P-E fit, Bruggemann defines the "person" variable in the equation as an individual's ideal expectations about the environment. This encompasses both needs and values, as well as personal perceptions of the appropriateness of environmental demands. Thus, Bruggemann's theory clearly begins with a P-E fit evaluation, but the type of fit is left open and only the direction – not the extent – of misfit is interpreted.

Similarly, Bruggemann's model of how individuals respond to misfit has strong links to classic coping theories, including its distinction between problem-focused and perception or appraisal-based (i.e., emotion-focused) coping (Folkman & Lazarus, 1988; Lazarus, 1993). Again, however, Bruggemann's theory does not fully elaborate the different coping mechanisms it has incorporated; in fact, some of the newer distinctions in the coping literature (e.g., engagement vs. disengagement coping, accommodation coping, or proactive coping; Carver & Connor-Smith, 2010) had not been made at the time the theory came into existence.

In some ways this lack of elaboration is a disadvantage. For instance, current fit-theories suggest that different facets of the work situation or different types of misfit could

moderate individuals' responses. Current coping theories have the potential to provide a more systematic and possibly more comprehensive way of classifying those responses. By not addressing these aspects, the Bruggemann model can be seen as incomplete. At the same time, its relative simplicity and focus on a fairly specific area of application is also an advantage. This reduction allows the model to take a broader perspective, establishing a theoretical link between P-E-fit and specific coping strategies in a plausible, parsimonious, and practically relevant way. Few of the more modern theories have even made this attempt.

One of the few attempts to elaborate on Bruggemann's model on the basis of modern insights was made by Büssing (1992), who proposed that controllability of the work situation would determine whether a person maintained, increased, or decreased his or her level of aspiration. In line with this assumption, Inauen, Jenny, and Bauer (2015) found that employees with progressive and stabilized satisfaction reported higher job control (and also lower effort-reward-imbalance) than employees experiencing resigned satisfaction. Moreover, constructively dissatisfied employees experienced higher job control than employees with fixated dissatisfaction, which is also in line with the theory.

The dynamic model of job satisfaction has been praised for its practical relevance (e.g., Landy & Conte, 2010); however, its operationalization has not been without criticism (e.g., Baumgartner & Udris, 2006). Several instruments have attempted to assess the postulated forms of (dis)satisfaction. Originally, Bruggemann (1976) herself developed the "Arbeitszufriedenheit-Kurzfragebogen" (AZK; Work Satisfaction Questionnaire – Short Form), which included one item per (dis)satisfaction form (excluding pseudo satisfaction, which, according to Bruggemann, cannot be measured directly due to the underlying implicit processes). Individuals were asked to choose the item that best describes their current (dis)satisfaction with their job. The AZK has been criticized for having somewhat ambiguous items and for not sufficiently capturing the cybernetic aspects of Bruggemann's model (e.g.,

Baumgartner & Udris, 2006; Ferreira, 2009). However, some studies have also supported the validity of the scale on the basis of quantitative (Ziegler & Schlett, 2013) as well as qualitative analyses (Büssing, Bissels, Fuchs, & Perrar, 1999).

Importantly, Bruggemann's theory helps to explain the high percentage of satisfied employees found in most studies by suggesting that this percentage is actually made up of people experiencing very different forms of satisfaction; in addition to truly satisfied employees (i.e., individuals with stabilized or progressive satisfaction), this group also includes employees who are essentially dissatisfied (i.e., have resigned or pseudo satisfaction). In fact, the few published empirical studies on the different forms of job (dis)satisfaction (e.g., Arnold & Mahler, 2010; Bruggemann, 1976; Büssing, 1992; Büssing et al., 1999; Inauen et al., 2015; Wegge & Neuhaus, 2002; Ziegler & Schlett, 2013) have suggested that, on average, about one third of satisfied employees are actually experiencing resigned satisfaction. This result means that considering differences in type of satisfaction, not simply extent of overall satisfaction, is likely to add to the (prognostic) validity of measures of job satisfaction.

### ***Forms of Job (Dis)Satisfaction and Outcomes***

Relations between *overall* job satisfaction and various individual and organizational outcome variables are already well-established in the literature: Meta-analyses have revealed medium to strong correlations between job satisfaction and general health ( $r = .37$ , Faragher, Cass, & Cooper, 2005), general well-being ( $r = .32-.48$ , Bowling, Eschleman, & Wang, 2010), and job-related well-being ( $r = .49$  for positive affect and  $r = -.46$  for negative affect, Judge & Ilies, 2004). Job satisfaction has also frequently been found to positively relate to work engagement ( $r = .53$ , Christian, Garza, & Slaughter, 2011), organizational commitment ( $r = .53$ , Mathieu & Zajac, 1990;  $r = .65$  for affective and  $r = .31$  for normative but  $r = -.07$  for continuance commitment, Meyer et al., 2002;  $r = .45-.62$ , Tett & Meyer, 1993), and,

albeit to a less extent, performance ( $r = .30$ , Judge et al., 2001) and organizational citizenship behavior (OCB;  $r = .36$ , Lapierre & Hackett, 2007;  $r = .24$ , LePine, Erez, & Johnson, 2002;  $r = .44$ , Organ & Ryan, 1995). Furthermore, longitudinal studies have revealed that job satisfaction and general or job-related well-being are reciprocally related over time (Bowling et al., 2010; Judge & Ilies, 2004) and that prior levels of job satisfaction are more likely to go along with subsequent changes in performance ( $r = .06$ ) than the other way around ( $r = .00$ , Riketta, 2008).

Studies addressing different forms of job (dis)satisfaction have indicated that these individual and organizational outcomes also depend on the particular (dis)satisfaction form employees are experiencing. Levels of well-being were found to be highest among stabilized satisfied employees, followed by progressively and then resignedly satisfied employees; well-being was lowest among employees with fixated dissatisfaction (Inauen et al., 2015; Wegge & Neuhaus, 2002; Ziegler & Schlett, 2013). A similar picture was obtained for overall job satisfaction. These findings are well in line with Bruggemann's theoretical model: A person with stabilized satisfaction experiences a fit between the work situation and his or her aspirations, while a person with progressive or resigned satisfaction (or any form of dissatisfaction) experiences a misfit. Progressively satisfied employees may be satisfied, but they have increased their aspiration level, which leads to a new discrepancy between the situation and their aspirations. Thus, progressively satisfied employees experience a sort of "creative dissatisfaction" (Büssing, 1992), even as they continue holding a positive basic attitude towards their job. On the other hand, employees with resigned satisfaction are essentially dissatisfied. They have, however, recovered a kind of satisfaction through the process of disengagement or resignation (cf. Carver & Connor-Smith, 2010; Ziegler & Schlett, 2013). Employees with constructive or fixated dissatisfaction have not regained satisfaction; because the former are actively trying to improve the situation, however, they

are more likely to reduce the misfit between the actual situation and their aspirations, thus increasing their chances of higher well-being and a stronger subjective sense of overall job satisfaction.

While employees with stabilized satisfaction seem to experience the highest levels of well-being (at least in the short term), progressively satisfied or even constructively dissatisfied employees are those who are especially likely to respond with increased motivation and should therefore show high values on motivational constructs such as work engagement or OCB (cf. Crant, 2000; Parker, Bindl, & Strauss, 2010). Inauen and colleagues (2015) have provided some evidence for this assumption: In their study, work engagement was highest among progressively satisfied employees, followed by engagement levels among employees with stabilized satisfaction and constructive dissatisfaction; employees with fixated dissatisfaction reported the lowest levels of work engagement. Moreover, in a study by Wegge and Neuhaus (2002), altruism (a dimension of OCB) and organizational identification were highest among employees experiencing progressive satisfaction, stabilized satisfaction, or constructive dissatisfaction.

Finally, in another cross-sectional study, Arnold and Mahler (2010) investigated differences in organizational commitment and intention to quit among employees with different forms of job (dis)satisfaction. The authors hypothesized that, due to their “creative dissatisfaction,” progressively satisfied employees would report lower organizational commitment and stronger intention to quit as compared to employees with stabilized satisfaction. The expected differences were statistically significant with regard to turnover intentions but not for commitment. Moreover, commitment was lowest and intention to quit strongest among employees with fixated dissatisfaction, followed by constructively dissatisfied employees and employees with resigned satisfaction, though these differences were not statistically significant. These results demonstrate that the different forms of job

satisfaction may be more relevant for some outcomes than for others. Though there are only a few studies on qualitatively different forms of job (dis)satisfaction – and these are largely cross-sectional or descriptive in nature – as a whole, the results suggest that attitudes, experiences, and outcomes of similarly (dis)satisfied employees are likely to differ depending on which specific form of satisfaction or dissatisfaction they experience.

### ***Present Study***

The present study aimed to contribute to job satisfaction research in several ways: First, we explored the extent to which Bruggemann's theorized job satisfaction types could be empirically identified using mixture modeling. By applying modern person-centered analysis tools to reappraise the robustness of the theory, we hoped to stimulate interest and research in a qualitative conceptualization of job satisfaction. The results of this analysis formed the basis for a second step, in which we investigated whether the prediction of individual and organizational outcome variables could be improved when qualitative differences in job satisfaction (i.e. the probabilities of belonging to latent classes) were considered in addition to quantitative differences in overall level of satisfaction. We considered three areas broadly relevant to individual and organizational prosperity and chose two representative criterion variables for each area: a) well-being, measured through general subjective well-being and job-related affective well-being, b) motivation, indicated by work engagement and organizational commitment, and c) performance, consisting of task performance and the OCB dimension performance initiative (hereafter shortened to "OCB"). We expected levels of global job satisfaction to relate positively to these criterion variables (Hypothesis 1), and we expected the inclusion of information about different forms of job satisfaction to contribute additionally to their prediction (Hypothesis 2). Moreover, we collected data in two waves across a five-month interval in order to be able to examine not only immediate effects of job

satisfaction but also effects over time. This approach also gave us the opportunity to explore individual stability and change in latent class membership over time.

## Method

### *Participants and Procedure*

Data were collected at two time points separated by a five-month interval among 1,208 members of an online survey panel established by *Respondi*. The panel members were invited via email to take part in the survey and received bonus points (which could be swapped for products) at the first measurement point (T1) in return for their participation. The response rate at T1 after data cleaning was 73%. The cross-sectional analyses are based on a sample of  $n = 892$  respondents (43.7% female) who provided full data at T1 and also reported working 5 hours a week or more ( $M = 37.65$ ,  $SD = 9.97$ ; *median* = 40.00; *maximum* = 80 hours). Their mean age was 41.44 years ( $SD = 11.44$ ; *range* = 18-65). About half the participants held either a high school diploma (22.5%) or a university degree (32.4%). They were working in a variety of professional fields and companies, where roughly one third (32.0%) held a leadership position.

Four hundred ninety-five of the participants whose responses were analyzed at T1 submitted their e-mail addresses to indicate that they were willing to participate in a follow-up survey (T2). The response rate at T2 after data cleaning was 40%. Only individuals who worked at least 5 hours a week and provided full questionnaire data at both time points were included in the longitudinal analyses, yielding a sample of  $n = 196$  individuals (48.5% female). This longitudinal sample was slightly older in age ( $M = 44.55$  years,  $SD = 10.83$ ; *range* = 18-64) but similarly educated in comparison with the T1 sample (20.9% holding a high school diploma and 30.1% holding a university degree).

### *Drop Out*

Since attrition from T1 to T2 was considerable, we drew on the data gathered at T1 to analyze possible differences between individuals who participated fully and those who dropped out at T2. We used logistic regression analysis to predict dropout based on age, sex, level of education, number of working hours, holding a leadership position, overall job satisfaction, level of each form of job (dis)satisfaction, and the six outcome variables (see Measures section for scale descriptions). Though the omnibus test for all predictors was significant,  $\chi^2(18) = 60.5, p < .01$ , with a Cox & Snell pseudo- $R^2$  of .07, only the odds ratios for age, task performance, and OCB differed significantly from 1 at  $\alpha = .10$ . Full participants were older (44.55 vs. 41.44 years,  $OR = 1.03$ ) and reported higher task performance (6.27 vs. 5.84,  $OR = 1.46$ ) and higher task initiative (5.28 vs. 4.88,  $OR = 1.19$ ) than did individuals who failed to complete the survey at T2. Removing these three variables from the analysis resulted in a statistically non-significant omnibus test,  $\chi^2(15) = 21.3, p = .13$ , a Cox & Snell pseudo- $R^2$  of .02, and no odds ratios below .80 or above 1.13 for any other predictor.

### **Measures**

#### *Job Satisfaction*

To assess participants' overall job satisfaction, we asked them to rate their agreement with the statement "I'm satisfied with my job" on a scale from *completely disagree* (1) to *completely agree* (7). Five additional statements assessed Bruggemann's five types of job (dis)satisfaction (published by Büssing et al., 1999, based on Bruggemann, 1976) using the same response scale: "I'm truly satisfied with my job, especially since I can really progress here" measuring *progressive* job satisfaction; "I'm truly satisfied with my job and for the near future I would like everything to remain as it is now" measuring *stabilized* job satisfaction; "I'm satisfied with my job – I always say it could be worse" measuring *resigned* job satisfaction; "Somehow I'm dissatisfied with my job, but I don't know what to do" measuring *fixated* job dissatisfaction; and "I'm dissatisfied with my job but I think that I can change

something in the future” measuring *constructive* job dissatisfaction. Unlike Bruggemann’s (1976) original assessment, we did not force participants to choose the single statement that they agreed with most in order to determine their job (dis)satisfaction type. Instead, this classification was achieved through our statistical analyses based on ratings of all five Bruggemann statements (see Statistical Analyses and Results section).

### *Well-Being*

Both general subjective psychological well-being and job-related affective well-being were measured. General well-being was assessed using the five-item WHO Well-Being Index (WHO-5; WHO Collaborating Centre in Mental Health, 1998). Participants rated how often they had felt different aspects of subjective well-being (e.g., feeling “cheerful and in good spirits” or experiencing daily life “filled with things that interest me”) over the last two weeks by choosing one of the options *at no time* (1), *some of the time* (2), *less than half of the time* (3), *more than half of the time* (4), *most of the time* (5), or *all of the time* (6); Cronbach’s  $\alpha = .90$  at T1. We assessed affective well-being using the twelve adjectives of the job-related affective well-being scale developed by Warr (1990), translated into German. Participants were asked to rate how often within the last 30 days their job had made them feel “relaxed”, “anxious”, “depressed”, “enthusiastic,” etc., on a scale from *never* (1) to *always* (6); Cronbach’s  $\alpha = .91$  at T1.

### *Motivation*

The current study assessed two forms of work-related motivation: work engagement and affective organizational commitment. Work engagement was measured using the nine-item German version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli & Bakker, 2003). Participants were asked to rate how often they experienced engagement at work, described in statements such as “At my job, I feel strong and vigorous.” They indicated extent of engagement by choosing between the options *never* (1), *almost never/ a few times a*

*year or less* (2), *rarely/ once a month or less* (3), *sometimes/ a few times a month* (4), *often/ once a week* (5), *very often/ a few times a week* (6), or *always/ every day* (7); Cronbach's  $\alpha = .96$  at T1. Commitment was measured using the eight-item Organizational Affective Commitment subscale of the Employee Commitment Survey developed by Allen and Meyer (1990) and translated by Schmidt, Hollmann, and Sodenkamp (Schmidt, Hollmann, & Sodenkamp, 1998; Schmidt and colleagues' use of the word "Betrieb" – i.e. firm/company – was replaced by the more general and accurate German translation "Organization").

Participants chose between the options *disagree completely* (1), *disagree somewhat* (2), *neither disagree nor agree* (3), *agree somewhat* (4), and *agree completely* (5) in response to items like "I really feel as if this organization's problems are my own" (Cronbach's  $\alpha = .78$  at T1).

### *Performance*

Performance was assessed using the two 5-item subscales "required work behavior" (i.e., task performance) and "organizational citizenship behavior: personal initiative" (i.e., OCB) from the FELA-S, a scale measuring self-reported achievement behavior at work (Staufenbiel & Hartz, 2000). Participants were asked to rate statements like "I fulfill my work responsibilities appropriately" (task performance) or "I take a regular and active part in meetings at work" (OCB) on a scale consisting of the options *disagree completely* (1), *disagree* (2), *disagree somewhat* (3), *neither disagree nor agree* (4), *agree somewhat* (5), *agree* (6), and *agree completely* (7); Cronbach's  $\alpha = .88$  for task performance and  $\alpha = .86$  for OCB at T1.

### *Statistical Analyses*

#### *Forms of Job Satisfaction*

Subgroups of respondents with distinct types of job (dis)satisfaction were identified using finite mixture modeling (see Hallquist & Wright, 2014; Morin et al., 2011). Following

Raykov, Marcoulides, and Chang (2016), the number of latent classes were identified by modeling the five Bruggemann job (dis)satisfaction items as latent factors and comparing the fit of different mixture models with one to nine classes. Across the different classes, strict measurement invariance of the latent factors was enforced. Moreover, the factor variances and covariances were constrained across classes. In this way, the identification of distinct satisfaction types was based on the means of the five items (see Raykov et al., 2016). The number of subgroups (i.e., latent classes) was identified using multiple criteria including the Bayesian Information Criterion (BIC; Schwarz, 1978), measures of entropy, and adjusted likelihood ratio tests (Lo, Mendell, & Rubin, 2001). The BIC indicates better models that more closely approximate the empirical data at lower values, whereas the entropy reflects better classification accuracy when approaching 1. Moreover, the likelihood ratio tests compared each model with a given number of classes to the model with one less class; statistically significant results indicate more support for the model with more classes over the model with fewer classes. Finally, in line with prevalent recommendations (see Wright & Hallquist, 2014), the class sizes and class differentiability were used to guide decisions on the practical relevance of a given class solution. Longitudinal stability of cluster membership was examined by extending the previous analyses to a latent transition model (Collins & Lanza, 2010) that estimated the transition probabilities between different clusters at the two measurement occasions. Because only a small subsample ( $n=196$ ) of respondents participated twice, we assumed strict measurement invariance over time and fixed the item parameters at both time points to those estimated from the full sample at T1.

### *Prediction of Criterion Variables*

In order to test our hypotheses that overall job satisfaction would positively predict our six outcome variables and that the Bruggemann-types of job satisfaction would add to this predictive power, we performed hierarchical linear regression analyses predicting each of

the six outcome variables, first using overall satisfaction (Step 1) and then including latent class membership probabilities for five of the six clusters (Step 2) as predictors. Since class membership probabilities for individual participants sum to one, it was not possible to include probabilities for all six clusters; this corresponds roughly dummy-coding of a 6-category variable except that uncertainty in cluster membership is explicitly modeled. Longitudinal analysis models were identical to the cross-sectional analyses except for the inclusion of the values of the outcome variable at T1 in Step 1 as a predictor of the outcome variable at T2. This means that longitudinal results can be interpreted as predictions of change in the dependent variable over time. All regression analyses were replicated using sex and age as control variables, but since this had minimal impact on the direction or magnitude of effects, we chose to report only the simpler regression model results.

In order to be able to compare coefficients of individual predictors within our regression models, we calculated and interpreted standardized regression coefficients. Since conventional formulas for the standard error of standardized coefficients (e.g., Cohen, Cohen, & West, 2002) assume – inaccurately – that the predictor and criterion variances are known population values and not themselves subject to sampling variability (Yuan & Chan, 2011), we used the asymptotic distribution free method suggested by Jones and Waller (2015) and implemented in their R-package *fungible* (<https://cran.r-project.org/web/packages/fungible/index.html>) to calculate confidence intervals for our standardized regression coefficients.

## **Results**

### ***Forms of Job Satisfaction***

Respondents with qualitatively different types of job (dis)satisfaction were identified by estimating different finite mixture models specifying between 1 and 9 classes (Table 1) on the basis of participants' level of agreement to the five Bruggemann job (dis)satisfaction

statements (means and intercorrelations shown in Table 2). BIC decreased as model complexity rose; differences were small between the 6- and 7-cluster solution ( $\Delta\text{BIC} = 21.015$ ) and negligible between the 8- and 9-cluster solution ( $\Delta\text{BIC} = 1.852$ ), a finding echoed in the non-significant ( $p > .05$ ) results of the Lo-Mendell-Rubin Likelihood Ratio Tests for both respective model comparisons. In order to preserve parsimony and because both solutions included five similar cluster profiles matching Bruggemann's predictions, we selected a 6-cluster solution. Figure 2 shows the cluster profiles, including our labels derived from the Bruggemann terminology. We identified two theoretically predicted dissatisfaction profiles with high levels of constructive or fixated dissatisfaction, respectively, both of which showed moderate levels of resigned satisfaction and low levels of progressive and stabilized satisfaction. A third "indistinct" dissatisfaction profile emerged, showing moderate levels of progressive and stabilized satisfaction, fairly high levels of resigned satisfaction, and very high levels of both fixated and constructive dissatisfaction. There was no indication of separate stabilized and progressive satisfaction profiles, but one profile showed high values for both scores and otherwise low dissatisfaction scores (stabilizing satisfaction profile). The fifth cluster showed similar satisfaction and dissatisfaction values, with the exception of resigned satisfaction, which was high as opposed to low – we labeled this profile "resigned satisfaction." The final cluster showed moderate values for all satisfaction types with a slight peak at resigned satisfaction, leading us to label the cluster "ambivalent/indifferent." Cluster membership was fairly evenly spread, though the resigned satisfaction (36%) and ambivalent/indifferent (21%) clusters were more densely populated than the other four clusters (8% to 13% of the sample; see Figure 2 for frequencies).

(Table 1 about here)

(Table 2 about here)

(Figure 2 about here)

### *Stability and Change in Cluster Membership*

Stability of cluster membership for individual participants was determined by fitting a latent transition model to the subsample of respondents that participated at both measurement occasions. The overall distribution of the cluster types at T2 stayed roughly comparable to the full-sample T1 frequencies for most clusters (change  $\leq 3\%$ ), though there was a slight rise in proportion of resigned satisfaction (36% vs. 42%) and a decrease in the ambivalent/indifferent cluster (21% vs. 15%) from T1 to T2. Observation of the proportional distribution only among the longitudinal sample ( $n = 196$ ) at T1, however, showed that these changes were partly due to selective attrition: differences between T1 and T2 disappeared for resigned satisfaction (42% vs. 43%) and diminished in the case of the ambivalent/indifferent cluster (17% vs. 15%; all other differences  $\leq 3\%$ ). Table 3 shows the transition probabilities for the six latent clusters from T1 to T2. The stabilizing and resigned job satisfaction clusters showed the highest levels of stability ( $> 74\%$  probability of staying in the same cluster), followed by fixated and indistinct job dissatisfaction ( $> 40\%$ ). Constructive job dissatisfaction and ambivalent/indifferent cluster were less stable, with transition probabilities all less than 35%.

(Table 3 about here)

### ***Prediction of Criterion Variables***

#### *Descriptive Statistics*

Means, standard deviations and intercorrelations of the affective, motivational, and performance-related outcome variables can be found in Table 2. Additionally, Table 4 reports descriptive outcome statistics for employees with different job (dis)satisfaction types for the whole sample at T1 (similar values were observed at T2). All criterion variables reached their highest values among the group of employees with stabilizing satisfaction and their second-

highest values among the group experiencing resigned satisfaction. Differences were less marked between the fixated, constructive, and indistinct dissatisfaction clusters.

(Table 4 about here)

### *Well-Being*

Overall job satisfaction showed positive relationships with job-related affective well-being cross-sectionally ( $\beta = .71$ ) and across time after controlling for initial values (i.e. change prediction;  $\beta = .30$ ). This pattern was echoed when predicting general well-being ( $\beta = .50$  and  $.20$ , respectively). Including estimates of the Bruggemann-satisfaction types improved prediction of well-being cross-sectionally by 4% to 5% explained variance, with stabilizing satisfaction, resigned satisfaction and fixated dissatisfaction being the strongest predictors. Explanatory power of the individual types across time was modest (1% explained variance, not statistically significant), with no individual coefficient differing reliably from zero (see Table 5 for full results).

(Table 5 about here)

### *Motivation*

Overall job satisfaction was positively related to work engagement cross-sectionally ( $\beta = .69$ ) and across time after controlling for initial values (change prediction;  $\beta = .21$ ). The cross-sectional relationship with affective organizational commitment was comparable ( $\beta = .60$ ) but disappeared almost completely across time ( $\beta = .06$ , n.s.; see Table 6). Bruggemann-satisfaction types improved prediction of the motivational outcomes cross-sectionally by 2% to 3% explained variance while there was no significant improvement in change prediction. Stabilizing satisfaction was particularly effective in explaining both work engagement and commitment cross-sectionally ( $\beta \geq .11$ ), while fixated dissatisfaction negatively predicted work engagement ( $\beta = -.08$ ) but showed no reliable relationship with

organizational commitment. Conversely, resigned satisfaction seemed to positively predict organizational commitment ( $\beta = .15$ ) while not relating significantly to work engagement.

(Table 6 about here)

### *Performance*

The relationship between overall job satisfaction and the two performance indicators were positive but smaller in size than relationships with well-being and motivational indicators, with both coefficients sinking below statistical significance in the longitudinal analysis (see Table 7). Adding the Bruggemann-satisfaction types improved the cross-sectional prediction of performance by 3% to 6% explained variance. Longitudinally, prediction of task performance (but not OCB) was improved by 4% explained variance. Four Bruggemann predictors showed a positive relationship with task performance cross-sectionally ( $.21 \leq \beta \leq .28$ ), with only the predictive power of indistinct dissatisfaction failing to reach statistical significance ( $\beta = .07$ ). Cross-sectional relationships of Bruggemann-types with OCB were more modest, with stabilizing satisfaction and indistinct dissatisfaction being the strongest predictors ( $\beta = .13$  and  $\beta = .11$ , respectively). Despite the overall increase in explained variance of task performance in the longitudinal analysis, no individual satisfaction predictor (including overall satisfaction) reached statistical significance in predicting change over time.

(Table 7 about here)

## **Discussion**

### ***Forms of Job Satisfaction***

In order to replicate Bruggemann's (1976) classification of employees into one of five forms of job (dis)satisfaction, we asked participants to agree with statements reflecting these forms on a 7-point Likert scale. In contrast to the original forced-choice format (choosing the one statement that best matched participants' self-assessment), the Likert-scaled measure

allowed participants to agree with multiple statements equally and thus made it possible to search for the postulated satisfaction forms using mixture modeling. This approach produced more nuanced results than the original typology. First, we were unable to corroborate Bruggemann's assumption that highly satisfied employees fall clearly into a "stabilized" versus "progressive" form of satisfaction; instead, results showed only one group with "stabilizing satisfaction" (i.e. high values for both progressive and stabilized satisfaction). This group could, however, be distinguished from a "resigned satisfaction" cluster, whose profile was quite similar but included strong agreement with the resigned satisfaction item. There was also evidence for both postulated dissatisfaction forms, as well as for a third "indistinct dissatisfaction" group. Finally, we identified an "ambivalent/indifferent" cluster with roughly equal values on all Bruggemann items.

It is difficult to say whether the lack of separate stabilized and progressive satisfaction profiles should be interpreted substantively or methodologically. Perhaps the formulation of the progressive satisfaction item failed to capture the element of active future change needed to distinguish it from the more passive form of stabilized satisfaction. On the other hand, it is also conceivable that progressive satisfaction develops only in the presence of a general desire to maintain the current positive situation. In fact, an individual satisfied with the current opportunities for positive change offered by his or her job might be expected to hope that this current situation – in other words the existence of the opportunity for positive change – will be maintained. Thus, the conceptual distinction between progressive and stabilized satisfaction may be less than clear. This argument can be extended by considering that aspiring to positive change requires substantial investment of personal resources (cf. Hobfoll, 1989; or Fay & Hüttges, 2016). Thus, it may be unrealistic to assume that employees constantly maintain a state of progressive satisfaction. Perhaps instead, progressive satisfaction is characterized by a more circular process including periods of increased

motivation for positive change followed by periods of stabilized satisfaction (i.e. phases of high engagement interspersed by a healthy form of disengagement coping). At any given time, there may be few individuals currently experiencing an intense progressive phase, making them difficult to identify. Over longer periods of time and multiple measurements, however, a distinction between employees who experience such progressive phases and those who do not may be possible. Even without assuming a circular stabilized-progressive-stabilized process, however, our current classification may have overlooked progressive versus stabilized trends in aspirational trajectories. Perhaps a distinction between these two clusters could have been made on the basis of more detailed process data, for instance gathered via diary study.

Similar arguments apply to the new “Ambivalent/indifferent” cluster we identified. Perhaps consideration of the preceding aspirational trajectories would have suggested interpretable differences within this group or revealed similarities to one or more of the other latent clusters. However, given that attitudinal ambivalence (e.g., Conner & Armitage, 2008) is well-established in the psychological literature and may in fact moderate the relationship between global job satisfaction and performance (Ziegler, Hagen, & Diehl, 2012; Ziegler, Schlett, Casel, & Diehl, 2012), an extension of the Bruggeman Model by this category is conceptually plausible. If comparisons between the actual and ideal job situation lead to vastly differing evaluations depending on which facet of work is considered, then individuals may not fall into one single job satisfaction cluster; they may show simultaneous but contradictory attitudes toward work. Such ambivalent individuals are difficult to distinguish from participants who answered carelessly or showed a tendency to agree with all items (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Overall, though, it seems reasonable that not all individuals will show a clear pattern of job (dis)satisfaction, and that predictions based on the Bruggemann types may be more precise if these individuals are considered separately.

One interesting avenue of future research might be to characterize this new cluster on the basis of scales specifically designed to measure job ambivalence (e.g., Ziegler, Hagen, et al., 2012) or statistical methods designed to identify biased responding (e.g., Rauch, Schweizer, & Moosbrugger, 2007).

A further interesting aspect of the latent cluster results was the large number of individuals with resigned job satisfaction (over 35% of the sample). This proportion is consistent with the 25%-45% resigned satisfaction found originally by Bruggemann (1976, p. 72), though it is somewhat higher than the roughly 20% identified in later studies (e.g., Büssing et al., 1999, p. 1018; Ziegler & Schlett, 2013, p. 68). While the number of resigned employees may truly be quite high, the wording of the resignation item (“it could be worse”) may actually conflate two different types of resignation. On the one hand, agreeing that one’s job “could be worse” may, as Bruggemann argued, be the result of an adaptive coping mechanism aimed at reducing dissonance between one’s aspirations and one’s experience of reality. This may be a healthy way to deal with professional difficulties; it constitutes a positive reframing of potentially negative situations that may protect individuals from disappointment or even result in more realistic job expectations. On the other hand, agreement with this statement could also indicate emotional disengagement. Individuals may agree that things “could be worse” because of the relative flippancy of the phrase and its implication that there are more devastating things in life than a mere job. Such emotional disengagement could be a healthy mechanism in principal, but it is likely to be negatively related to investment-based job outcomes (e.g., work engagement, commitment, OCB) and at extreme values it overlaps with the concepts of emotional exhaustion and cynicism characteristic of burnout (e.g., Schaufeli & Bakker, 2004). Thus, the consequences of these two possible sources of resigned satisfaction may be quite different. If these effects really are opposite in direction, then separating these groups could reveal stronger relationships

between each type of resigned satisfaction and job outcomes. More detailed exploration of the resigned satisfaction cluster – including questions about the relative roles of cognitive reappraisal and emotional disengagement in the “resignation” process – are needed to detangle this possible confound.

Despite such variation from the (dis)satisfaction types postulated by Bruggemann, our outcome patterns did conform to the model’s predictions in interesting ways. Specifically, employees with fixated job dissatisfaction showed the lowest values in well-being and motivation, followed by employees with indistinct dissatisfaction and with constructive dissatisfaction. Resigned satisfaction was associated with slightly lower outcome levels than stabilizing satisfaction. One unexpected pattern was the lack of variation in task performance among the job satisfaction types. Since task performance can be understood as meeting minimum job requirements, however, this result is not unreasonable: fixated job dissatisfaction does not seem to imply that employees shirk their work, only that they experience lower motivation and well-being while doing it.

In addition to postulating different forms of satisfaction, Bruggemann’s model is theoretically interesting because it assumes that job satisfaction arises through (mis)fit between the given job situation and personal aspirations. This, in turn, implies that type of job satisfaction is not a stable personality trait but a state that may fluctuate or – perhaps – develop along predictable pathways under certain circumstances. Our data suggest that some forms of employees’ job (dis)satisfaction are substantially more stable than others. Employees experiencing stabilizing or resigned satisfaction were extremely likely to remain in their respective clusters after five months. The lower extreme of the satisfaction spectrum, fixated dissatisfaction, was also fairly stable, though individuals had a fair chance of moving from fixated to resigned satisfaction. Movement from the ambivalent/indifferent and the constructive job dissatisfaction clusters was most diffuse: transition probabilities were pretty

evenly spread across all the categories. This instability of the ambivalent/indifferent cluster is consistent with research showing that attitude change is more likely when attitudes are ambivalent (Luttrell, Petty, & Briñol, 2016; Maio, Bell, & Esses, 1996). If conflicting attitudes are already present, it seems reasonable that a variety of situational and personal factors might succeed in changing this type of job satisfaction in a variety of directions over the course of five months. In contrast, it seems likely that the instability of constructive dissatisfaction could be driven by whether or not employees have found that they could actually “change something in the future.” Thus, their movement to more satisfied clusters could indicate that their working situation has improved relative to their aspirations, while movement to the indistinct dissatisfaction cluster might indicate lack of improvement and a receding hope that they will be able to change their situation for the better. Interpreting dissatisfaction from a psychological contract perspective, this argument is in line with Tomprou, Rousseou, and Hansen’s (2015) psychological contract post-violation model, which states that, in addition to self-based resources, organizational resources and organizational responsiveness help determine how employees respond to contract violations. Overall, the results suggest that constructive dissatisfaction might be a crossroads where employees are particularly receptive to positive (or negative) job interventions. Early identification of these individuals may give organizations a chance to respond to constructive employee criticism in a way that increases satisfaction instead of allowing constructive dissatisfaction to slip into more stable and detrimental forms of dissatisfaction like indistinct job dissatisfaction.

### ***Predicting Well-Being, Motivation, and Performance***

#### ***Overall Job Satisfaction***

As expected, overall job satisfaction was a substantial predictor for all the outcome variables in the cross-sectional analyses (explained variances  $\geq 13\%$ ). Its cross-sectional

relationship was strongest, accounting for about half of the variance in job-related affective well-being and in work engagement. Overall satisfaction was less effective in predicting changes in the outcomes over time, but its effect was still positive and substantial for both forms of well-being, as well as for work engagement. Thus, our first hypothesis was supported fully in the cross-sectional and partly in the longitudinal analysis. One explanation for the decreased explanatory power of job satisfaction for organizational commitment and OCB might be that these scales capture aspects of high-activation, volitional behavior (i.e., attending meetings, making suggestions for improvement) absent in a general assessment of (comparatively passive) job satisfaction. While the work engagement scale also included items relating to energy and enthusiasm, work engagement's close ties to the concepts of burnout and well-being might help explain why its relationship to overall job satisfaction more closely echoed those of the explicit well-being scales. In contrast, the lack of long-term relationship between job satisfaction and task performance could be explained by the fact that this scale captures the "minimal" aspects of job performance – i.e., fulfilling (only) one's duties. While dissatisfaction might certainly lead to less conscientious performance of duties, a very substantial level of dissatisfaction must be present before one would expect an employee to fully neglect his or her contractual duties (this argument could be seen as predicting a ceiling effect for task performance; in fact, the mean value was quite high for all groups, though we did find some variation in the measure).

#### *Bruggemann Forms of (Dis)Satisfaction*

Despite the sometimes substantial predictive power of overall job satisfaction, adding the latent cluster membership probabilities of the Bruggemann (dis)satisfaction types had a small but consistent positive effect (2% to 6% explained variance) on the regression models' ability to predict the six work- and health-related outcomes cross-sectionally. Prediction of changes in outcomes over the span of five months was more modest, with only the explained

variance for change in task performance reaching statistical significance (4% explained variance); in this case, however, no individual predictor's regression coefficient differed significantly from zero, making interpretation of the direction of change effects difficult. Thus, our second hypothesis was supported cross-sectionally, but the longitudinal change predictions failed to meet our expectations. Though this may indicate that the Bruggemann types are not particularly predictively useful over time, the relatively small T2-sample may have caused this analysis to be underpowered, high measurement error in the one-item scales may have decreased precision of the cluster analysis, or the five-month time lag may be too short or long a timespan to register changes. Further research using multi-item measures and more frequent time sampling designs might be able to reveal stronger longitudinal effects.

Particularly interesting in the cross-sectional analyses were the noticeable differences in predictive power between the different forms of (dis)satisfaction. While fixated dissatisfaction negatively predicted well-being and work engagement, constructive dissatisfaction showed positive or neutral relationships. This finding is in line with assumptions underlying research on proactivity and disengagement coping. Disengagement coping (e.g., fixated dissatisfaction) has been shown to be harmful for individuals' well-being (Carver & Connor-Smith, 2010). On the other hand, engagement coping or proactivity (e.g., constructive dissatisfaction) is a more effective way to reduce stress and thus constitutes a more positive long-term coping strategy (e.g., Cangiano & Parker, 2015; Carver & Connor-Smith, 2010). A quiet echo of this hierarchy can be seen in the descriptively higher loadings of the (more active) stabilizing satisfaction in comparison with the (more passive) resigned satisfaction predictor. Theoretically, however, we would have expected to see this pattern in the longitudinal, not the cross-sectional loadings. Since proactive attempts consume resources (Hobfoll, 1989), they are likely to have some negative consequences in the short term (Cangiano & Parker, 2015). We found no evidence of this change in effect direction. Possibly

our analysis was not sensitive enough to register small changes in the five-month observational period; however, the existing differences in cross-sectional coefficients suggest that some of the advantages of active coping strategies may have already been felt by the time employees were classified as constructively dissatisfied.

### ***Limitations and Future Research***

Despite the interesting relationships revealed by questioning participants more closely about their type of job (dis)satisfaction, the current study used a fairly crude measure of satisfaction type. Bruggemann has often been criticized for the rough operationalization of her constructs, and the current scale cannot escape these criticisms. Because each type of (dis)satisfaction was measured using only a single item, no estimate of internal consistency was possible; similarly, any attempt to test a five-factor structure on the basis of five items would have been tautological. Though single-item measures have been shown to have psychometrically acceptable properties in other contexts (Gogol et al., 2014) and specifically in the context of global job satisfaction (Wanous, Reichers, & Hudy, 1997), the reduction of each (dis)satisfaction type to one item doubtless also led to a reduction of measurement precision as well as a reduction of breadth of the original constructs (e.g., reducing progressive satisfaction to a desire to personally progress in one's job). Nevertheless, our mixture modeling approach showed that employee responses to these items did roughly correspond to Bruggemann's typology. Instead of focusing on whether the variables are independent factors across all participants (which Bruggemann never directly claimed), we thus explored the theory on its own terms: as a claim about qualitative differences in variable profiles among individual participants. Indeed, we found that participants with similar overall satisfaction levels could be classified into groups with quite different satisfaction profiles. Thus, we were able to contribute to the recent growth of person-centered research in organizational contexts (e.g., Bennett, Gabriel, Calderwood, Dahling, & Trougakos, 2016;

Hom et al., 2012; Meyer et al., 2013; Morin et al., 2011; Wang & Hanges, 2011; Woo & Allen, 2014). Furthermore, by using cluster membership probabilities to predict metric outcomes, we were able to merge the more qualitative with a traditional quantitative approach, demonstrating the potential usefulness of a person-centered typology for variable-based predictive models. Though our 6-cluster solution, regression analyses, and especially our tentative findings regarding changes in cluster membership over time must be replicated on independent and larger samples in order to be fully trusted, we feel that this approach to corroborating and challenging Bruggemann's theory is quite promising. Beyond replication with a larger sample, also including multi-item measures of the individual Bruggemann types as well as additional items designed to distinguish between different kinds of resignation coping and levels of job ambivalence may further improve the precision of latent cluster boundaries and thus the predictive power of job satisfaction cluster membership.

A further limitation of our study and possible direction for future research arises from our sample composition. Drawing on an online panel, we recruited a broad spectrum of employed individuals from different professions and at different points in their careers. Though the online survey mode may have increased the proportion of participants working in an office, on the whole we had a highly heterogeneous sample. On the one hand, this makes it more likely that our sample contained most job satisfaction types likely to emerge in the course of an average working career. At the same time, this heterogeneity makes it more difficult to explore the effects of specific situations on the development of job satisfaction. In a relatively homogeneous sample of newly hired employees, for instance, we might be able to see effects of differences between the ideal and actual work situation more clearly, since such differences are likely to be greatest before employees have had the chance to adjust their expectations to a given working environment. This in turn means that it should be easiest to identify adjustments and to observe whether they have the postulated consequences for

satisfaction during the first weeks and months following job entry. Thus, future research looking into the development of job satisfaction in a homogeneous sample just entering the workforce is particularly interesting from a Bruggemann perspective.

A more general problem with our operationalization of the Bruggemann construct is that laying our focus on the *current* form of (dis)satisfaction neglects the opportunity to test the model's assumptions about how these forms come to be. Bruggemann's model is not only a typology, but also a process model, and its assumptions about the antecedents and causes of the different types of (dis)satisfaction are the theoretical aspects most likely to be of practical use in promoting the more positive types of satisfaction and preventing the more negative types from developing. Thus, in order to determine whether a discrepancy between the ideal and actual work situation truly does interact with level of aspiration to produce different forms of (dis)satisfaction, it is necessary to question participants about their ideal and actual work situations. Research on person-environment fit has made many relevant methodological contributions that could be a starting point for a more sophisticated operationalization of the dynamic comparison process at the root of the model (e.g., Edwards, Cable, Williamson, Lambert, & Shipp, 2006).

In order to track the shape of developments over time, it is also necessary to study participants on more than two occasions. Tracking subjective ideals and perceived situation across multiple occasions (e.g. using diary study methodology) offers a direct way of measuring changes in level of aspiration and of testing Bruggemann's process assumptions without relying on (presumably biased) post-hoc judgments of those changes and without being forced into a rough linear extrapolation based only on two time points. Linking subjective estimates of the actual work situation with objective indicators – for instance those available through modern tracking technologies (e.g., Remijn, Stembert, Mulder, & Choenni, 2015; Swan, 2013) or other multimethod approaches (e.g., Eid & Diener, 2006) – may even

provide a way to capture the “pseudo-satisfaction” construct, which Bruggemann (1976) wrote off as unmeasurable.

In summary, going beyond a single, overall satisfaction measure seems a promising way to help increase our understanding of the mechanisms driving positive as well as negative work outcomes. While overall satisfaction is important, additional aspects of engagement, resignation, and problem-solving attempts accompanying that self-estimate of “job satisfaction” may help explain or even bring to light inconsistencies in the overall measure’s ability to predict practically relevant outcomes. Ultimately, being (dis)satisfied with work can be a critical liability; it can also be a source of change and improvement. Bruggemann’s model offers a way of differentiating between types of (dis)satisfaction in order to help researchers understand the processes involved and to help practitioners ensure better outcomes for employee and employer alike.

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Table 1. *Fit Indices for Different Mixture Models*

Model	<i>logLik</i>	Number of parameters	BIC	Entropy	LRT- <i>p</i>	Smallest class proportion
1 class	-8,336.46	20	16,808.79	1.00	-	-
2 classes	-8,187.72	26	16,552.07	0.88	< .001	34%
3 classes	-8,088.14	32	16,393.66	0.88	< .001	11%
4 classes	-7,943.25	38	16,144.65	0.90	< .001	9%
5 classes	-7,861.58	44	16,022.08	0.86	< .001	9%
6 classes	-7,795.12	50	15,929.91	0.86	.023	8%
7 classes	-7,764.23	56	15,908.89	0.87	.058	6%
8 classes	-7,721.22	62	15,863.64	0.87	.002	6%
9 classes	-7,681.75	68	15,825.45	0.89	.353	2%

*Note.* *logLik* = Logarithm of the model likelihood; BIC = Bayesian Information Criterion (Schwarz, 1978); LRT-*p* = *p*-value associated with the adjusted likelihood ratio test (Lo et al., 2001).

Table 2. *Descriptive Statistics for Metric Variables at T1 (n = 892).*

<i>Variable</i>	<i>M (SD)</i>	JS	iPS	iSS	iRS	iCDS	iFDS	GWB	JAW	WE	OC	TASK
Overall job satisfaction (JS)	5.05 (1.69)											
Item: Progressive satisfaction (iPS)	4.07 (1.99)	.74										
Item: Stabilized satisfaction (iSS)	4.35 (1.99)	.79	.78									
Item: Resigned satisfaction (iRS)	4.39 (1.80)	.20	.05	.14								
Item: Constructive dissatisfaction (iCDS)	2.82 (1.79)	-.52	-.45	-.55	.01							
Item: Fixated dissatisfaction (iFDS)	2.85 (1.87)	-.59	-.54	-.57	.01	.49						
General well-being (GWB)	3.83 (1.08)	.50	.50	.51	.06	-.27	-.44					
Job-related affective well-being (JAW)	4.06 (0.92)	.71	.64	.68	.12	-.42	-.62	.66				
Work engagement (WE)	4.52 (1.36)	.69	.65	.63	.13	-.31	-.49	.51	.65			
Organizational commitment (OC)	3.26 (0.74)	.60	.58	.56	.08	-.40	-.43	.32	.45	.54		
Task performance (TASK)	5.94 (0.97)	.36	.20	.26	.09	-.28	-.28	.15	.34	.30	.26	
Organizational citizenship behavior (OCB)	4.97 (1.28)	.40	.41	.31	.04	-.13	-.28	.24	.34	.47	.47	.47

*Note.* Coefficients whose absolute value exceeds .07 are statistically significant at  $\alpha = .05$ ; values above .09 are significant at  $\alpha = .01$ .

Table 3: *Latent Transition Probabilities for Different Latent Types of Job Satisfaction (JS) or Job Dissatisfaction (JDS) from T1 (Rows) to T2 (Columns)*

Latent status	Stabilizing JS	Resigned JS	Constructive JDS	Indistinct JDS	Fixated JDS	Ambivalent/ indifferent
Stabilizing JS	.81	.15	.00	.03	.00	.00
Resigned JS	.04	.75	.06	.00	.03	.13
Constructive JDS	.11	.17	.30	.23	.00	.21
Indistinct JDS	.00	.00	.05	.41	.27	.28
Fixated JDS	.00	.21	.16	.06	.57	.00
Ambivalent/indifferent	.14	.35	.08	.11	.11	.21

*Note.* Item parameters were fixed to the values calculated in the full T1 sample ( $n=892$ ) and applied to analyses of the longitudinal sample ( $n=196$ )

Table 4. Means (Standard Deviations) of the Criterion Variables for Employees with Different Latent Types of Job Satisfaction (JS) or Job Dissatisfaction (JDS) at T1 (n = 892).

Type	General job satisfaction	General well-being	Job-related affective well-being	Work engagement	Organizational commitment	Task Performance	OCB
Stabilizing JS	6.49 (0.98)	4.54 (0.78)	4.84 (0.51)	5.52 (0.94)	3.83 (0.62)	6.42 (0.75)	5.69 (1.25)
Resigned JS	5.99 (1.16)	4.18 (0.96)	4.51 (0.71)	5.04 (1.18)	3.56 (0.68)	6.19 (0.83)	5.18 (1.24)
Constructive JDS	4.05 (1.82)	3.66 (0.91)	3.87 (0.87)	4.20 (1.37)	2.93 (0.84)	6.04 (1.04)	4.87 (1.41)
Indistinct JDS	3.86 (1.55)	3.51 (1.12)	3.48 (0.78)	4.08 (1.27)	2.90 (0.62)	5.53 (0.94)	4.87 (1.11)
Fixated JDS	3.65 (1.60)	2.94 (1.09)	3.13 (1.00)	3.3 (1.29)	2.87 (0.66)	5.88 (0.92)	4.22 (1.36)
Ambivalent/indifferent	4.34 (1.23)	3.51 (0.93)	3.72 (0.61)	4.02 (1.09)	2.96 (0.51)	5.42 (1.02)	4.66 (1.06)

Table 5. Results of Hierarchical Linear Regression Models Predicting Subjective Well-Being Criteria (Standardized Coefficients with 95% Confidence Intervals in Brackets).

Predictors	General well-being		Job-related affective well-being	
	T1	T2	T1	T2
<i>Step 1</i>				
Dependent variable T1	-	.60 [.47, .74]	-	.51 [.35, .68]
Overall job satisfaction	.50 [.44, .56]	.20 [.07, .32]	.71 [.68, .75]	.30 [.14, .46]
$\Delta R^2$	.25	.52	.51	.56
<i>Step 2</i>				
Dependent variable T1	-	.60 [.45, .74]	-	.47 [.30, .64]
Overall job satisfaction	.37 [.28, .46]	.18 [.05, .32]	.55 [.48, .61]	.24 [.08, .41]
Stabilizing satisfaction <sup>a</sup>	.16 [.09, .24]	.00 [-.12, .12]	.18 [.11, .24]	.05 [-.08, .19]
Resigned satisfaction <sup>a</sup>	.10 [.01, .19]	.01 [-.15, .17]	.15 [.08, .22]	.11 [-.06, .27]
Constructive dissatisfaction <sup>a</sup>	.05 [-.02, .11]	.05 [-.08, .18]	.07 [.01, .13]	.04 [-.11, .19]
Indistinct dissatisfaction <sup>a</sup>	.01 [-.06, .09]	-.05 [-.16, .06]	-.05 [-.10, .01]	-.01 [-.13, .11]
Fixated dissatisfaction <sup>a</sup>	-.13 [-.20, -.06]	.00 [-.13, .13]	-.12 [-.18, -.07]	-.06 [-.20, .09]
$\Delta R^2$	.04	.01 n.s.	.05	.01 n.s.
<i>Total R<sup>2</sup></i>	.29	.52	.56	.58

<sup>a</sup> Latent cluster membership probabilities

Table 6. Results of Hierarchical Linear Regression Models Predicting Motivational Outcomes (Standardized Coefficients with 95% Confidence Intervals in Brackets).

Predictors	Work engagement		Organizational commitment	
	T1	T2	T1	T2
<i>Step 1</i>				
Dependent variable T1	-	.61 [.45, .77]	-	.75 [.65, .85]
Overall job satisfaction	.69 [.64, .73]	.21 [.04, .37]	.60 [.56, .64]	.06 [-.05, .17]
$\Delta R^2$	.47	.58	.36	.63
<i>Step 2</i>				
Dependent variable T1	-	.61 [.45, .77]	-	.77 [.66, .87]
Overall job satisfaction	.62 [.56, .69]	.15 [-.01, .32]	.47 [.41, .54]	.00 [-.13, .13]
Stabilizing satisfaction <sup>a</sup>	.11 [.04, .18]	.05 [-.09, .18]	.19 [.12, .26]	.01 [-.12, .14]
Resigned satisfaction <sup>a</sup>	.08 [.00, .15]	.01 [-.15, .16]	.15 [.08, .22]	.00 [-.14, .14]
Constructive dissatisfaction <sup>a</sup>	.07 [.01, .13]	-.05 [-.17, .07]	.00 [-.07, .06]	.09 [-.05, .22]
Indistinct dissatisfaction <sup>a</sup>	.08 [.02, .14]	-.02 [-.14, .09]	.02 [-.04, .08]	-.06 [-.17, .05]
Fixated dissatisfaction <sup>a</sup>	-.08 [-.13, -.02]	-.05 [-.18, .08]	.02 [-.04, .08]	-.09 [-.20, .01]
$\Delta R^2$	.02	.01 n.s.	.03	.02 n.s.
<i>Total R<sup>2</sup></i>	.50	.59	.39	.65

<sup>a</sup> Latent cluster membership probabilities

Table 7. Results of Hierarchical Linear Regression Models Predicting Self-Reported Performance Criteria (Standardized Coefficients with 95% Confidence Intervals in Brackets).

Predictors	Task performance		OCB	
	T1	T2	T1	T2
<i>Step 1</i>				
Dependent variable T1	-	.61 [.48, .74]	-	.79 [.71, .86]
Overall job satisfaction	.36 [.30, .42]	.06 [-.05, .17]	.40 [.34, .47]	.09 [-.01, .19]
$\Delta R^2$	.13	.39	.16	.67
<i>Step 2</i>				
Dependent variable T1	-	.58 [.43, .73]	-	.79 [.71, .87]
Overall job satisfaction	.27 [.17, .37]	-.09 [-.26, .07]	.37 [.28, .45]	.05 [-.06, .16]
Stabilizing satisfaction <sup>a</sup>	.23 [.15, .32]	.14 [-.04, .32]	.13 [.05, .21]	-.06 [-.17, .04]
Resigned satisfaction <sup>a</sup>	.28 [.18, .38]	.09 [-.13, .31]	.04 [-.04, .12]	-.01 [-.13, .12]
Constructive dissatisfaction <sup>a</sup>	.21 [.12, .29]	-.12 [-.24, .00]	.08 [.01, .15]	-.06 [-.13, .01]
Indistinct dissatisfaction <sup>a</sup>	.07 [-.01, .15]	-.07 [-.20, .06]	.11 [.04, .17]	-.08 [-.17, .02]
Fixated dissatisfaction <sup>a</sup>	.21 [.14, .29]	-.07 [-.24, .10]	-.04 [-.12, .04]	-.09 [-.19, .01]
$\Delta R^2$	.06	.04	.03	.01 n.s.
<i>Total R<sup>2</sup></i>	.19	.43	.19	.68

<sup>a</sup> Latent cluster membership probabilities