

## **Jobs and Job-Holders: Two Sources of Happiness and Unhappiness**

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Perspectives on the sources of happiness (sometimes viewed as “well-being”) may be distinguished in terms of their primary emphasis – either on features in the environment or on people’s thoughts and feelings. Much research in industrial-organizational psychology and occupational health psychology has concerned the impact of job or organizational features (the first perspective), and relatively few investigations have instead focused on workers and their cognitive and affective processes. Associated intervention studies have concentrated mainly on the environment (redesigning jobs and organizations) and less on the worker (e.g., blocking negative thoughts and establishing positive routines).

Each approach has its value, but happiness and unhappiness clearly derive from both sources. Increased understanding in this area thus requires a combination of environment-centered and person-centered frameworks. This chapter will illustrate some possible ways to bring together research of the two kinds. Sections will separately cover environmental features and within-person mental processes, and a third section will examine the combined operation of those two kinds of variable. The emphasis throughout will be on happiness with a medium conceptual scope, focusing on “domain-specific” (here job-related) happiness, rather than on general-scope (“context-free”) happiness (e.g., life satisfaction or global well-being) or on narrower “facet-specific” forms such as satisfaction with one’s boss or pay.

### **An Environment-Centered Perspective: Job Characteristics and Happiness**

Within the first (environment-centered) approach to worker happiness, a principal need is for an appropriate classification system of influential job features. The framework set out in Table 1 identifies the 12 principal characteristics of a job that have been shown to be associated with employee happiness or unhappiness. Items are preceded by “E” to indicate their environmental reference, and sub-components of each are illustrated in the second column.

(Table 1 about here)

A job that is psychologically “good” scores well in respect of at least some of those features in addition to providing an adequate income (E7). The fact that the environmental sources of happiness or unhappiness are broadly the same in any domain, gave rise to Warr’s (1987, 2007) framework to account for experiences associated with employment, unemployment and retirement in the same terms. For example, the opportunity for personal control (E1 in the table) is essential in any setting for meeting personal goals, for sustaining a sense of personal agency, and for reducing feelings of helplessness. Environmental clarity (E5) is generally

desired both to reduce anxiety about the future and to make it possible to plan and regulate actions<sup>1</sup>.

### *Non-Linear Associations and the Vitamin Analogy*

The importance of these 12 environmental features has often been demonstrated by research in many countries, but the precise nature of particular processes requires further examination. For example, it seems likely that the level of an environmental (including job) feature is associated with happiness in a non-linear fashion, specifically in a pattern analogous to the effect of vitamins on bodily condition. Vitamins are important for physical health up to but not beyond a certain level. At low levels of intake, vitamin deficiency gives rise to physiological impairment and ill-health (sometimes referred to in a medical context as “deficiency disease”), but after a moderate level has been reached (the “recommended, or guideline, daily allowance”) there is no benefit from additional quantities. In a similar manner, it may be that the absence of a primary environmental characteristic leads to certain forms of unhappiness, but that its presence beyond a certain level does not further increase happiness.

In addition, some vitamins become harmful in very large quantities, so that the association between increased vitamin intake and physical health becomes negative after a broad range of moderate amounts. This relationship may also occur for certain aspects of the environment, particularly with respect to context-free (rather than more restricted forms of) happiness. The possibility is summarized in Figure 1, where low (“deficiency”) values of an environmental feature are depicted as particularly harmful and those in the middle range are shown as having a constant beneficial effect on happiness. A second, smaller decrement is proposed at particularly high (“toxic”) values for certain environmental features (labeled as “AD”) but not for others (“CE”).

(Figure 1 about here)

Those two labels are also based on abbreviations in the vitamin analogy. There are no toxic consequences from very high intakes of certain vitamins: deficiency causes ill-health, but additional doses beyond a moderate amount have a constant effect. Vitamins C and E are of that kind. The abbreviation “CE” in Figure 1 reflects this pattern, and can also stand for “constant effect”. On the other hand, vitamins A and D are toxic at very high levels, and “AD” in the figure may be read as an “additional decrement”.

The “vitamin model” suggests that six of the primary environmental features considered so far may be viewed as analogues of vitamins A and D, and that the other six instead parallel vitamins C and E. Suggested AD vitamins are E1 to E6 in Table 1: opportunity for personal control, opportunity for skill use and acquisition, externally-generated goals, variety, environmental clarity, and contact with others. The features thought to have a constant effect beyond moderate levels are E7 to E12: availability of money, physical security, valued social

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<sup>1</sup> Note that E10, E11 and E12 in Table 1 specifically concern jobs, covering aspects of paid employment. The other nine environmental characteristics are important in roles of all kinds, not merely at work. In that way, for instance, a person’s unemployed or retired situation might be worse or better than his or her previous job in respect of E1 to E9, but E10 to E12 are irrelevant outside a job. See also Warr and Clapperton (2010).

position, supportive supervision, career outlook, and equity (Warr, 2007; Warr & Clapperton, 2010).

Why should certain features of the environment (E1 to E6), desirable at moderate levels, become harmful when extremely high? The “too much of a good thing” pattern seems likely for both intrinsic reasons and because of associated effects from other features. Very high levels of some environmental characteristics can become punishing in themselves, and they are likely also to be accompanied by extremely high levels of other features that themselves yield an additional decrement.

Thus features identified as “opportunities” (for control and for skill use; E1 and E2) are expected to yield happiness decrements at the right-hand side of Figure 1 as the “opportunity” becomes an “unavoidable requirement” at very high levels; behavior is then coerced rather than being encouraged or facilitated. Environments that call for unremitting control (a very high level of feature E1) through extremely difficult decision-making and sustained personal responsibility, or which demand continuous use of extremely complex skills (E2), can give rise to overload problems as very high demands exceed personal capabilities. In part, those problems of excess arise from a correlated shift to a particularly high level of externally-generated goals (E3). As those goals become extremely difficult and/or numerous, the load may become unmanageable and internally contradictory, with an inability to cope with environmental requirements and an accumulation of harmful effects.

Extremely high variety in the environment (E4) requires constant switching of attention and activity, with resulting low concentration and limited attainment of single goals; conflict between contradictory goals may then be present (an aspect of E3), and extreme diversity may prohibit the development and use of skills (E2). E5 (environmental clarity) appears also to be of this “additional decrement” (AD) kind. At extremely high levels, there is no uncertainty about the future, events are entirely predictable and never novel, and a fixed set of role requirements permits no new experiences. Such settings prevent risk-taking, contain little potential for skill development, and provide no opportunity to expand one’s control over the environment.

A similar down-turn of the happiness curve is expected at very high levels of contact with other people (E6). Very substantial social inputs can impair well-being through overcrowding and lack of privacy in high-density situations, or through a lack of personal control, frequent interruptions, and the prohibited initiation of valued activities because of other people’s continuing demands. Behavioral procedures and physical structures to prevent excessive social contact have been created in cultures of all kinds.

Several environmental features in the vitamin model are thus assumed to be of the “additional decrement” kind, with their positive association with happiness not only leveling off across the moderate to high range but also becoming reversed at very high levels; research evidence will be illustrated below. The proposed decline at very high levels is likely to be smaller than at very low levels, since deficiencies in a feature (at the left of Figure 1) carry particularly negative implications for the person; and even excessively high levels retain some of the benefits provided in the moderate range. The additional decrement (AD) assumption about happiness as a function of certain environmental features thus takes the form of an asymmetrical, flattened, inverse U-shaped association.

That average pattern is particularly likely for context-free rather than narrower forms of (domain-specific or facet-specific) happiness. Additional environmental features from multiple domains (e.g., family or social life as well as merely from a job) cumulatively affect happiness at the context-free level (e.g., life satisfaction or global well-being); furthermore, these several domain-specific impacts vary within and between people. Variants of the general possibility in Figure 1 which cover different levels of happiness scope have been developed by Warr (2007). The mid-range plateau shown in the figure is expected to be progressively shorter as one moves from context-free to facet-specific experiences, with average-person associations at the facet-specific level exhibiting least non-linearity.

The other six features in Table 1 (E7 to E12) are proposed to be unrelated to (especially context-free) happiness, exhibiting a “constant effect” (CE) beyond a low-to-medium range. Although extremely high levels of these features can create unhappiness in particular cases, increases are on average unlikely to have a generally negative effect for people as a whole. The high-range negative impact proposed for “additional decrement” features (above) was suggested to arise from two sources: each one’s inherent harmful impact, and associated harm from other variables. Neither of those impacts is expected on average for high levels of the identified “constant effect” features. Instead, the assumption is that high to very high values of those environmental characteristics are on average accompanied by similar levels of context-free happiness.

In all cases, a non-linear association between the level of an environmental feature and people’s happiness is thus proposed. Environmental increments of a certain size at lower values (to the left of Figure 1) are suggested to give rise to greater increases in happiness than do increments of the same magnitude at moderate to high values. Some non-linearity of this kind appears to be inevitable, since affect cannot continue to increase at the same rate without limit on receipt of ever higher and higher levels of an input.

To what extent have research findings been consistent with this apparent logical necessity? Only a tiny proportion of studies in this area have examined possible departures from linearity, and many of those are unsuitable for the task since they suffer from restriction of range; their environmental scores do not extend fully across very high, medium and very low levels. Linked to that, research into several job characteristics has intentionally examined only a limited section of scores, for example covering only low or only high levels of skill use, variety or demands. In addition, the common statistical practice in this area of including in multiple regression analyses several non-linear functions together is inappropriate. That simultaneous analysis tests a multivariate hypothesis that is different from the primary one discussed here. To learn about a single variable’s non-linearity, we should not previously have extracted the variance linked to other variables’ non-linearity.

Empirical evidence about Figure-1 relationships is thus both scarce and often inadequate. However, “additional decrements”, as proposed for the first six “vitamins”, have been observed in several studies of job-related well-being. In respect of E1 (opportunity for personal control), Baltes, Bauer, Bajdo, and Parker (2002) recorded an AD pattern for job satisfaction, and a leveling-off has been found in studies described by Warr (2007) and Warr and Inceoglu (2011). (An absence of extremely high levels of personal control in typical research samples may be relevant here; see above.) Findings across a wide range of scores are not available for E2

(opportunity for skill use and acquisition), but overlaps of that feature with E1 and E3 suggest that a similar pattern is present.

In respect of E3, externally-generated goals, research restricted to either low or high scores (sometimes referred to as “underload” and “overload” respectively) has yielded associations with well-being in opposite directions at the two extremes of the horizontal axis in Figure 1. Overall “additional decrement” demands-happiness patterns have been demonstrated by, for instance, Karasek (1979) and Warr (1990), and a leveling-off was reported by Warr and Inceoglu (2011). Other studies have observed an AD pattern for particular forms of happiness or in specific sub-samples (e.g., De Jonge, Reuvers, Houtman, Bongers, & Kompier, 2000).

For role clarity (an aspect of E5), significant non-linearity with a decrement at highest levels was observed by Baltes et al. (2002), and the association between job feedback and engagement stabilized beyond moderate levels in the study by Warr and Inceoglu (2011). In respect of E6, research has examined both the quantity and the quality of social contact. In the first respect, very low social density can of course yield feelings of loneliness and personal isolation, and very high levels of input from other people have been shown to be undesirable in work settings through studies of open-plan offices (e.g., Brennan, Chugh, & Kline, 2002). The importance of social contact’s quality (rather than merely its quantity) has been confirmed in research into bullying and social support in the low or higher ranges respectively. “Additional decrement” effects also occur for this feature. A laboratory experiment by Deelstra, Peeters, Schaufeli, Stroebe, Zilstra, and van Doornen (2003) arranged for workers in a simulated office setting to receive instrumental assistance from a co-worker, who was in fact a confederate of the investigators. Extremely high levels of social support of this kind led to a down-turn in affect, as illustrated in Figure 1. That pattern was also observed in an organizational sample by de Jonge et al. (2000).

In respect of the other environmental features in Table 1, only a few studies have examined possible non-linearity. However, stabilization of association after moderate quantities has frequently been demonstrated in respect of income (E7) and context-free happiness. A standard increment in income, which can provide a major benefit to people in poverty, yields a smaller benefit to happiness in the wealthy. This “constant effect” pattern has been found in comparisons between individuals within a single country (e.g., Diener, Sandvik, Seidlitz, & Diener, 1993) and in terms of average scores for entire nations (e.g., Frey & Stutzer, 2001). Non-linearity in respect of this feature appears not to have been tested in organizational research, although Kornhauser (1965) reported a stronger association between pay and happiness among lower-skilled employees.

Examining supervisors’ considerate behavior (E10), non-linearity at the group level (rather than in respect of individuals themselves) was observed by Fleishman and Harris (1962). They found that subordinates’ grievances and turnover were correlated with that environmental feature at low levels of consideration but not at higher levels. For equity (E12), Schaufeli’s (2006) review identified non-linear patterns in several studies. For example, Taris, Kalimo, and Schaufeli (2002) found that, once a threshold of acceptability had been reached, further increments had no further impact. This “constant effect” pattern appears likely on conceptual grounds to be widely found: above a moderately high level of features E7 to E12, small gains (important at low levels) are expected to be of little average consequence.

Discussion so far has concerned individual aspects of a job, the 12 “vitamins” in Table 1. Jobs do of course involve several features in combination, and it might be expected that compounds of either “additional decrement” or “constant effect” elements will also yield the patterns in Figure 1. No study has examined non-linearity across an entire sub-set of “vitamins” (either all AD or all CE together), but Xie and Johns (1995) observed the asymmetric inverted-U in a study combining four assumed AD features and one of the “constant effect” kind.

Job features may also combine with each other in an interactive manner, yielding non-linear patterns only in certain combinations. For example, Chung-Yan (2010) found an inverted-U relationship between job complexity and job satisfaction for workers whose job autonomy was low but not for higher-autonomy workers. The tipping point at which additional complexity becomes undesirable to a job-holder is lower when the freedom to handle that complexity is also low.

In overview, the vitamin model proposes non-linearity of association between job content and worker happiness or unhappiness, with different forms of non-linearity in two sets of job features. Additionally but not detailed here because of space limitations, the pattern is assumed to vary somewhat between different indices of happiness; for example, very high job demands have a particularly negative impact in respect of job-related anxiety-contentment rather than depression-enthusiasm (see Warr, 2007). Another implication of this non-linear account concerns between-study differences. If an examined sample is mainly to the right of Figure 1 in, say, job demands (E3), a negative association between that feature and happiness is expected. However, if the sample happens to be more widely spread or located mainly in the middle of the range, a correlation around zero is likely. Observed demands-happiness patterns are expected to vary somewhat between investigations, and that is indeed the case.

### **A Person-Centered Perspective: Mental Processes and Happiness**

Although environmental sources are important as considered above, happiness and unhappiness also derive from a person himself or herself. Two aspects are important: longer-term characteristics, such as dispositional or demographic features, and also an individual’s way of attending to and thinking about particular situations as they are experienced.

In the former respect, personality traits such as neuroticism, extraversion and conscientiousness are significantly related to many happiness indicators including job satisfaction (e.g., Judge, Heller, & Mount, 2002); and associations of well-being with age (e.g., Clark, Oswald, & Warr, 1996) and gender (e.g., Warr, 2007) are often also significant. In respect of shorter-term influences, happiness is partly a function of several comparative judgments, concerned with where one has been, where one might be instead, how the future might develop, and assessments of self-efficacy, novelty and personal salience. Ten judgments of those kinds are summarized in Table 2, together with (in italics) questions that people might ask themselves in respect of each one.

(Table 2 about here)

In respect of judgment J1 in the table, it is regularly found in non-organizational research that “downward” comparisons with other people (judgments made relative to people who are

worse-off in the relevant respect) tend to enhance a person's own happiness (e.g., Wheeler, 2000). Some studies in employment settings have examined social comparisons within the framework of equity theory, finding that perceived input-output ratios in comparison with other people's ratios affect a worker's feelings; happiness can depend in part on perceptions of fairness in relation to other people. In respect of pay level, satisfaction has been shown to be lower as a function of negative upward comparison, when the income of others is seen to be inequitably high in relation to their inputs of skill, effort, exposure to adverse working conditions, etc. (e.g., Adams 1965). Schaufeli (2006) has documented similar themes in respect of social exchange in organizations, and comparative processes of this kind are likely in respect of several other environmental contributors in Table 1.

Comparisons with other situations (J2 in Table 2) can be of two kinds – in relation to situations that were expected, or relative to those that otherwise might have occurred. In those ways, job-related well-being sometimes derives in part from judgments based on a person's prior expectations (J2A) or on assessments of other situations, known or imagined (J2B). In the first case, laboratory studies have confirmed that events that are unexpected have a greater impact on happiness or unhappiness than do those that were expected. The second J2 comparison involves consideration of either poorer or better counterfactual alternatives, those which are contrary to the facts. People may focus upon ways in which their current situation might instead have developed, for example judging that the situation could be a lot worse or better than it is.

Upward counterfactual judgments (relative to a more attractive possibility) tend to evoke unpleasant feelings, whereas downward comparisons (which consider an alternative that is worse than reality) can increase a person's happiness (Olson, Buhrman, & Roesse, 2000). The process was illustrated by Medvec, Madey and Gilovich (1995) in a study of Olympic medalists. Those receiving silver medals for achieving second place tended to be less happy with their position than were bronze medalists in third place. Many second-place winners appeared to base their feelings in part on upward counterfactual comparisons ("I failed to be the best"), whereas athletes in third place were more likely to make downward comparisons, being pleased to have reached the medal positions ("I did better than all the rest").

Third in Table 2 are assessments of previous and likely future trends (J3). For example (J3A), is this stressful situation getting better or worse? Have I moved adequately towards a goal? Given that goals may be defined as "internal representations of desired states" (Austin & Vancouver, 1996, p. 338), good progress towards a goal (a "desired state") is generally associated with better well-being, and low or negative progress gives rise to reduced well-being (e.g., Lyubomirsky, Sheldon, & Schkade, 2005). Linked to that, employees' attainment of work goals can contribute to their job-related happiness and context-free well-being (Harris, Daniels, & Briner, 2003; Wiese & Freund, 2005).

Table 2 also draws attention to the possible impact on well-being of expectations about a future trend (J3B). This has sometimes been examined as perceived probability of success, and positive expectations of that kind are significantly associated with subjective well-being (e.g., Emmons, 1986); in everyday terms, happiness is often felt to depend in part on "having something to look forward to". One implication is that in negative situations, for instance of job stress, it can be predicted that employees' unhappiness will be in part a function of expected future levels of that stress. Examining the extent to which employees mentally "switch off" after

a working day, Sonnentag and Bayer (2005) concluded it is not primarily the amount of time pressure that one has faced at work that makes psychological detachment difficult, but rather the anticipation that time pressure will continue during the working days to come.

The appraisal judgments reviewed so far (J1 to J3) have their impact on happiness or unhappiness through comparisons with reference standards that are external to the person. J4 to J6 in Table 2 operate instead in relation to a person's own bench-marks, in terms of self-efficacy, novelty and personal salience.

Self-efficacy reflects a person's perception that he or she is competent in relation to present demands (J4 in Table 2). Both retrospective and prospective judgments about situation-related self-efficacy are likely to influence happiness. In the first case, recent behavior is compared against one's bench-mark level of competence, in response to questions like "have I coped well?" or "have I made a mess of this?". For example, an employee's perception that he or she has failed to prevent a controllable negative event might give rise to even more unhappiness. Scheck and Kinicki (2000) found that employees' positive assessments of their self-efficacy during organizational change were linked to lower perceptions of threat and potential harm. In addition, future-oriented beliefs about one's personal efficacy in a situation ("I'm going to be able to handle this"; or the converse) are expected to influence current happiness, even when a perceived ability to exercise control over that situation is in fact illusory (e.g., Bandura & Locke, 2003). As in other cases, relevant investigations in job settings are still required.

Also important are a person's assessments of the novelty or familiarity of a current situation (J5 in Table 2). Continued exposure to a situation tends to reduce its affective potential, either negative or positive, so that more familiar inputs come to generate feelings that are less extreme. In effect, you evaluate your position partly in terms of what you are used to.

Biological and psychological processes of habituation have been widely observed, when responses to a stimulus become diminished after repeated presentation of that stimulus. Such a change may be viewed in terms of a raised adaptation level, when exposure to earlier stimuli creates a frame of reference establishing standards in relation to which later stimuli are judged. In the area of this chapter, such judgmental standards have been indexed as the average pleasantness of recent experiences (e.g., Parducci, 1995). An increase across time in this average pleasantness implies that a later event or situation has to exceed a higher threshold (a raised judgmental standard) before it has the same impact on well-being.

Much research has demonstrated that positive feelings in response to a constant or repeated environmental stimulus can gradually become reduced or even give way to indifference. For example, Brickman, Coates, and Janoff-Bulman (1978) reported adaptation across time in people who had won large sums of money in a state lottery, and also found that victims of serious accidents did not appear as unhappy as might have been expected. They drew attention to a common perceptual error, when observers see victims of misfortune as more distressed than do those people themselves.

Forms of hedonic adaptation have been illustrated in several projects in organizations. Boswell, Boudreau, and Tichy (2005) studied well-being changes longitudinally among

employees voluntarily moving into a new job. Overall job satisfaction was found to increase immediately after entry into a new position, but in subsequent years it declined significantly as individuals became adapted to the realities of their role. Daniels and Guppy (1997) examined employees' strain as a function of particular environmental stressors, finding that experienced strain was less from those stressors that had previously been encountered.

Processes of adaptation may thus contribute to an increased ability to handle environmental demands after a period of exposure to those demands. In that respect, everyday experience suggests that many people's capacity to manage a substantial workload becomes "ratcheted up" after a period of coping with increased pressure; workload that would otherwise cause difficulties and strain can more easily be handled after a person has become adapted to a raised level. The impact of workload itself (an environmental feature) depends in part on judgments about one's situation.

Adaptation can operate through the application of other judgments in the framework. For example, changes in J1 and J2B (comparisons with other people and with other possible situations) can contribute to adaptation, as people over time come to reinterpret their situation through new social comparisons or emphasizing different counterfactual possibilities. In addition, adaptation can give rise to changes in the impact of environmental features considered earlier. For example, environmental clarity (E5 in Table 1) can increase as knowledge develops, and contact with others (E6) may be modified as mutual learning occurs between an individual and people in his or her changed setting. Adjustment to a situation may also involve shifts in externally-generated goals (E3), as different activities are undertaken or a person's ability to attain particular goals becomes enhanced or reduced.

The happiness or unhappiness of employees whose job features have improved or deteriorated is for these reasons likely to return towards an equilibrium level, perhaps being held under personal homeostatic control (Cummins, 2000). The "dynamic equilibrium model" of Headey and Wearing (1992) proposed that each person has a customary level of well-being, and that changes from that level are likely to be only temporary as subsequent adaptation occurs. Headey and Wearing observed this pattern in a community sample across a six-year period. The longitudinal pattern reported for job-changers by Boswell et al. (2005) (above) also illustrated a return to people's baseline happiness levels after a temporary increase in happiness. Within banking organizations, Griffin (1991) found that, although the content of employees' jobs remained enhanced for several years after job redesign, their overall job satisfaction increased only temporarily before falling back to its earlier level. This tendency for happiness and unhappiness to stabilize around a person's baseline level is reflected in significant associations with personality traits (illustrated above) and in consistency of, for instance, satisfaction across time (e.g., Bowling, Beehr, Wagner, & Libkuman, 2005).

Finally in Table 2 are judgments about the personal salience of an environmental feature (J6). Research in this area has used two sets of descriptive labels, which are conceptually and empirically interdependent. On the one hand, the salience of a situation or environmental feature has been examined in terms of the degree to which it is viewed as personally important, significant, or of concern (how much it "matters to" a person). In other studies, descriptions have been in terms of a person's wants, preferences or values – the extent to which he or she would like the feature to be present.

Judgments of personal salience are likely to have a moderating influence on happiness in many domains of life. Table 2 points out that relevant themes may be viewed at three levels of generality – concerned with the salience of role membership (e.g., the strength of one’s commitment to having a job, J6A), the salience of role characteristics (e.g., how much one values personal autonomy in a job, J6B), or the salience of core tasks (e.g., how much one is attracted to, say, working with animals in a job, J6C). Occupational research at all those levels has been reviewed by Warr (2007); the present focus (illustrated in the next section) will be restricted to J6B, concerned with the perceived desirability of job features.

In overview, the present section has emphasized that happiness or unhappiness in jobs and elsewhere depends on the person as well as the environment. Personal influences can derive from long-term attributes and dispositions, and in addition research has pointed to the importance of certain kinds of thought about a current situation. Both long-term personal features and situation-specific mental processes require inclusion in studies of work and happiness. However, most occupational research has focused only on the job or organizational environment, and the few person-oriented studies that do examine within-worker variables have typically excluded the environment, reporting merely associations between, for instance, personality traits and outcomes irrespective of possible impacts from characteristics of an individual’s job. Findings to date are thus one-sided and incomplete.

### **A Combined Perspective: Happiness as a Function of Both Job and Personal Characteristics**

Several forms of joint operation can be envisaged. For example, particular environmental and personal variables might both be important for happiness but operate independently of each other. Alternatively, examples of the two kinds of variable may work together through some form of mediation, perhaps such that the environment has its impact partly or entirely through personal variables. Or the two may have a moderating impact on each other, with one’s association depending on the level of the other. In addition, mutual impact can develop across time, for example as individuals’ cognitive, physical or personality attributes encourage a transition into certain forms of employment or a concentration on certain job activities, which then affect happiness. Joint operation of those kinds can involve personal variables that are either relatively long-term (e.g., dispositional traits) or shorter-term (as in situational judgments).

#### *Longer-term Personal Influences*

Mediation of a personality-happiness link through aspects of job content has been illustrated by Judge, Bono, and Locke (2000) and Grant and Langan-Fox (2007), and across-time processes are reflected in a significant longitudinal association between negative affectivity and key job characteristics a year later (Houkes, Janssen, de Jonge, & Bakker, 2003). Evidence is also growing about the moderation of job-happiness associations by relevant aspects of personality; job features can have either more or less impact depending on certain dispositional traits.

For example, Kahn, Wolfe, Quinn, and Snoek (1964) and Keenan and McBain (1979) showed that the correlation of role ambiguity with aspects of happiness differed between workers with low and high ambiguity-tolerance. Vroom’s (1959) study found that the autonomy-

satisfaction correlation depended on a worker's (low) authoritarianism and preference for independence. Other job-related instances of personality moderation have been reported by Dijkstra, van Dierendonck, Evers, and de Dreu (2005), Rogelberg, Leach, Warr, and Burnfield (2006), Bond, Flaxman, and Bunce (2008), and Rego, Souto, and Cunha (2009). Workman and Bommer (2004) described an experimental study in which call center jobs were redesigned to increase team-based interaction; job satisfaction was found to increase most for those employees with a stronger preference for group-working.

Moderation of this kind has also been demonstrated in respect of workers' continuing preferences (a form of value-judgment) for particular job features. Individuals who more value a particular job characteristic are more likely to be affected by the degree to which it is present or absent (e.g., Rice, Gentile, & McFarlin, 1991). This pattern has also been shown for *groups of* job features, for which preferences have been recorded as "growth need strength" (GNS; the extent to which a worker values personal autonomy, new learning, etc.). Much research has confirmed that correlations between relevant job features and job satisfaction are greater for high-GNS employees than for those who less value the features (e.g., Loher, Noe, Moeller, & Fitzgerald, 1985)

Personal dispositions are expected also to affect the linearity or non-linearity of associations between job features and happiness. For example, high task demands can overload less able workers (yielding an AD pattern as described earlier) while their more able colleagues seek still more challenge. A down-turn in well-being is thus expected to accompany still-greater demands at more moderate levels for less able individuals. Similarly, low scorers on personality traits will sooner reach a tipping point for relevant desirable job features; they do not want higher levels in the way that high-trait individuals do. Thus Rego et al. (2009) found that workers with a lower need to belong showed greater non-linearity in the association between degree of social support and affective well-being than did high-need workers; for individuals with a lower need for interpersonal inputs, high levels of social support more readily yielded "additional decrements" than for workers who more sought that support.

It is clear that environmental features are associated with happiness or unhappiness to different degrees and in different ways according to the nature of an individual, for example in respect of his or her personality traits and continuing values. This variegated dispositional pattern is presumably linked to differences in particular ways of thinking and feeling about one's environment. In addition to more often measuring traits in occupational research (as illustrated in this section), it is thus important also to examine situation-specific cognitive and affective processes.

#### *Shorter-term Personal Influences*

In respect of shorter-term thinking processes, Staw and Cohen-Charash (2005) have illustrated how the experience of job satisfaction derives from several within-person information-processing steps – recognition and evaluation of work features, memory and retrieval, element-aggregation, and the expression of feelings. Aspects of those are illustrated within ten forms of situational judgment in Table 2, but mental processes of those kinds have rarely been investigated in job settings.

A basic requirement is for the creation of thought-process measures that can be incorporated in studies of the environment. There are undoubtedly problems in the accurate measurement of cognitive activity, and the reliability and validity of retrospective self-reports can be open to question. Nevertheless, given that observed correlations between job features and happiness indicators are often only moderate and that causal mechanisms can depend on the mental processes involved, it is essential to include measures of at least some of the Table-2 judgments in job-related research. For example, the nature of a worker's relevant social or counterfactual comparisons (J1 and J2) should be explored, and job-feature preferences (J6B) should routinely be recorded within studies of job characteristics and their outcomes. Given that the degree of discrepancy between job content and a worker's preferences is in general linked to job-related well-being (e.g., Ostroff & Judge, 2007), more research into specific forms of misfit and different aspects of well-being would be valuable. In addition, a moderating impact of particular mental processes on environment-happiness outcomes is likely, parallel to the role of personality traits (above); job features are likely to be differently associated with happiness depending on particular thoughts and feelings about those features in one's particular situation.

It is also important to learn about factors linked to the occurrence or non-occurrence of each type of Table-2 judgment. Their prevalence (and thus potential impact) is likely to be associated with, for instance, the nature of a setting, personality traits, age, and gender; and differences in cognitive emphasis are also likely to depend in part on local norms in a work-group or wider culture (Warr, 2006).

#### *Person-oriented Interventions*

In addition to environment-and-person studies that examine potentially important longer-term and shorter-term personal variables (above), a third combined approach is through individual-level interventions to enhance well-being. Counseling procedures to reduce strain in a particular setting may seek to encourage (for example) relaxation, meditation, stress awareness, more appropriate assertiveness, or improved time management and goal-setting. Some programs have applied themes from cognitive behavioral therapy (CBT), in which a trainer and a client work together to identify a worker's negative thoughts and seek to replace those by more constructive routines.

Occupational strain management programs have proved to be effective across at least several subsequent weeks (e.g., Richardson & Rothstein, 2008), especially for workers with high initial levels of distress (Flaxman & Bond, 2010). Positive findings in non-job settings have been brought together by Lyobomirsky (2008) and applied to happiness at work by Warr and Clapperton (2010). Person-centered studies of this kind, introducing and monitoring change, are in effect experiments into the impact of potentially important cognitive and affective variables. They take us more directly to potential within-person causal explanations, and can go beyond the limitations of research which merely examines correlations between well-being and its possible sources. Worker-oriented interventions are therefore desirable for both practical and theoretical reasons – both to reduce strain and also to develop and test models about person-level processes underlying happiness or unhappiness in particular environmental conditions.

Intervention studies can sometimes be strengthened by the inclusion of person-oriented themes from the two previous sections, covering longer-term attributes or situational judgments.

In that way, dispositional, demographic and judgmental variables found in correlational research to be associated with happiness or unhappiness can helpfully be incorporated in intervention projects, providing by means of experiment more detailed information about causal processes. For example, Bond and Bunce (2000) found that workers' willingness to accept undesirable thoughts and feelings mediated the beneficial impact of an emotion-focused intervention on distress and depression. Note also that intervention studies that change environmental variables as well as merely processes within an individual are particularly desirable, both to learn about possible within-person influences and also because adjustments to a work setting can be important in implementing and maintaining person-level changes.

### Conclusion and Future Directions

This chapter has emphasized that, in order to understand and enhance worker happiness, it is essential to examine aspects of the person as well as features of a job and organization. Within that overall need, developments of the following kinds have been advocated:

- investigate the possible mediation or moderation of environment-outcome links by personality dispositions and personal values and by situation-specific judgments
- explore the presence of non-linear relationships between job features and happiness or unhappiness, and examine the possibility that non-linearity differs between individuals with different characteristics
- develop models and measures of situation-relevant judgments of the kind illustrated in Table 2
- expand person-oriented intervention research in job setting, to enhance well-being and to learn more about key causal processes.

Other themes merely mentioned within the chapter's space limitation also point to desirable action requirements. For example, it is essential to distinguish conceptually and empirically between different forms of happiness and unhappiness (e.g., Spector, Chen, & O'Connell, 2000, p. 216): each one has its own partly distinct sources and consequences (e.g., Warr, 2007; Warr, Bindl, Parker, & Inceoglu, 2011). And the combined investigation in a single study of our discipline's two key outcomes – performance as well as well-being – remains extremely rare. It is essential to learn more about how those might affect each other. For instance procedures to enhance well-being might sometimes impair productivity, or personal or organizational efforts to improve performance might give rise to greater anxiety and tension before raised well-being becomes possible. In addition, a mental and behavioral trade-off may occur, as individuals seek to regulate one in relation to the other; why work any harder if that will make you anxious, exhausted or even ill? However, detailed knowledge of joint performance-and-happiness issues has yet to be developed.

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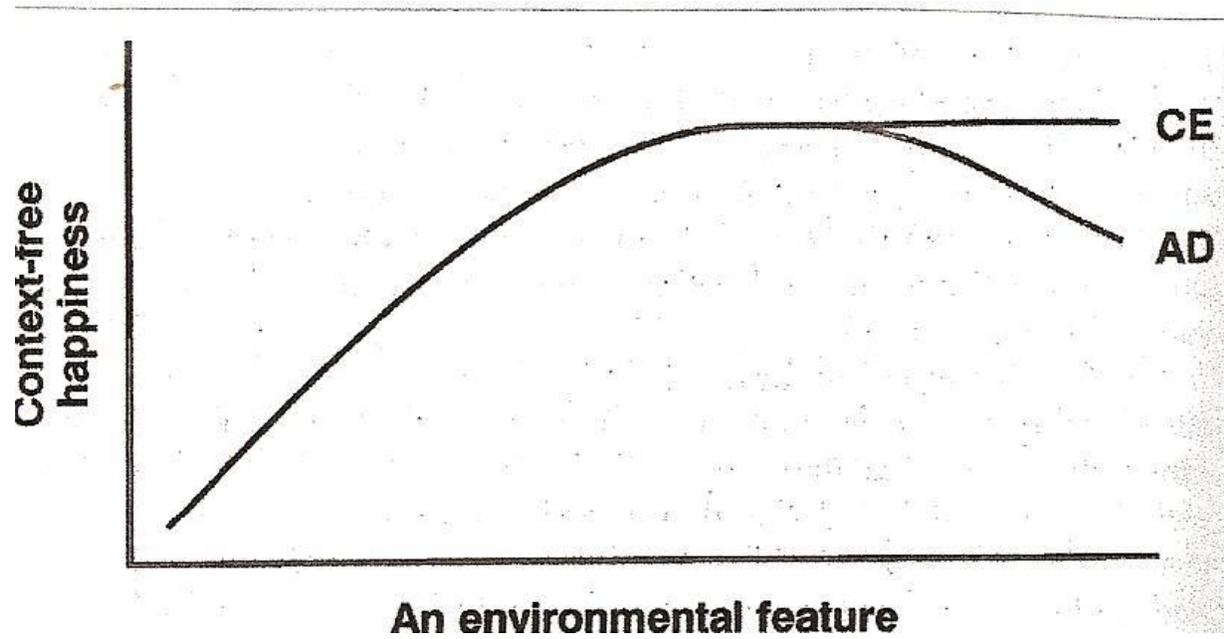


Figure 1. The vitamin analogy: proposed "additional decrement" (AD) and "constant effect" (CE) relationships between environmental features and context-free happiness.

Table 1

## Principal Job Characteristics Affecting Happiness or Unhappiness

Job feature	Themes and illustrative sub-components
E1. Opportunity for personal control	Personal influence, autonomy, discretion, decision latitude, participation
E2. Opportunity for skill use and acquisition	A setting's potential for applying and developing expertise and knowledge
E3. Externally-generated goals	External demands, challenge, underload and overload, task identity, role conflict, required emotional labor, competition from others, work-home conflict
E4. Variety	Changes in task content and social contacts, varied work location
E5. Environmental clarity	Predictable outcomes, clear requirements, role clarity, task feedback, low future ambiguity
E6. Contact with others	Amount of social contact, quality of social relationships, dependence on others, team working
E7. Availability of money	Available income, pay level, payment for results
E8. Physical security	Working conditions, degree of hazard, quality of equipment
E9. Valued social position	Significance of a task or role, contribution to society, status in valued groups
E10. Supportive supervision	Consideration by bosses, fair treatment by supervisor, concern for one's welfare
E11. Career outlook	Job security, the opportunity to gain promotion or shift to other roles
E12. Equity	Justice within one's organization, fairness in the organization's relations with society

Table 2

## Multiple Judgments of a Situation within a Person-Centered Approach to Happiness or Unhappiness

Type of mental process	Illustrative self-questions
J1. Comparisons with other people	J1. <i>“How does my situation compare with that of another individual/group or of the average person?”</i>
J2. Comparisons with other situations	
J2A. Expected situation	J2A. <i>“How does my situation compare with the situation I expected?”</i>
J2B. Counterfactual situation(s)	J2B. <i>“How might the situation have developed in other ways?”</i>
J3. Comparisons with other times	
J3A. Previous trend	J3A. <i>“Up to now, has the situation deteriorated, improved, or remained unchanged?”</i>
J3B. Likely future trend	J3B. <i>“From now on, is the situation likely to deteriorate, improve, or remain unchanged?”</i>
J4. Assessments of situation-related self-efficacy	J4. <i>“Was/is my performance effective in this situation?”</i>
J5. Assessments of novelty or familiarity	J5. <i>“Is the situation unusual or is it routine?”</i>
J6. Assessments of personal salience	
J6A. Rated importance of role membership	J6A. <i>“Do I want to be in this role?”</i>
J6B. Rated importance of a role characteristic	J6B. <i>“Do I value this feature?”</i>
J6C. Rated attractiveness of core tasks in the role	J6C. <i>“Do I like the things I have to do?”</i>