

The Spirited, the Observant, and the Disheartened: Social Concepts of Optimism, Realism, and Pessimism

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ABSTRACT The social concepts of optimism, pessimism, and realism were investigated by assessing the prototypical acts (thoughts, feelings, goals, and actions) that laypersons assign to optimists, pessimists, and realists responding to a controllable and an uncontrollable situation. Optimists and realists, but not pessimists, were seen as adjusting their behavior to the situation. However, whereas optimists were characterized by flexibility in thoughts and feelings but invariance in goals and actions (i.e., they pursued their goals in both controllable and uncontrollable situations), the act profiles assigned to realists varied on all of these dimensions. The profile assigned to pessimists was characterized by cognitive, affective, motivational, and behavioral invariance, encompassing negative construals of the situation, giving up, and a focus on distress.

In the past two decades, a wealth of research has accumulated that provides evidence that optimism promotes mental and physical health. Optimism is positively related to various indicators of subjective well-being, such as happiness, satisfaction, and quality of life

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(e.g., Andersson, 1996; Scheier, Carver, & Bridges, 2001). Optimism is also associated with better physical health, indicated, for example, by better immune responses, lower susceptibility to diseases, and longer survival time (e.g., Peterson & Bossio, 2001; Scheier & Carver, 2003; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). Thus, optimists seem to be generally better off than pessimists. However, this does not imply that high optimism is always beneficial. Rather, most researchers assume that optimism needs to stay in touch with reality to be adaptive (e.g., Schneider, 2001; Taylor, Lerner, Sherman, Sage, & McDowell, 2003). Specifically, it is assumed that *adaptive optimism* is characterized by active goal pursuit when the controllability of the situation is high, but by acceptance and disengagement when controllability is low (Scheier et al., 2001). The available empirical evidence suggests that optimists generally come close to this ideal of matching beliefs and behaviors to situational constraints (Armor & Taylor, 1998; Aspinwall, Richter, & Hoffman, 2001). This, however, raises the question of how to distinguish optimism (and pessimism) from realism. At present, this question is unanswered, because attention so far has been restricted to the measurement of optimism and pessimism.

Several theoretical approaches conceptualize optimism and pessimism as personality dimensions. The concept of *dispositional optimism*, which has attracted greatest interest among the researchers over the past two decades, describes generalized and global positive outcome expectancies (Scheier & Carver, 1985). In this conception, optimism and pessimism are viewed as opposite poles of a single underlying continuum. Seligman and coworkers conceptualized optimism and pessimism in a somewhat different way, interpreting the two concepts as *explanatory styles* (Seligman, 1991). An optimistic explanatory style is defined as the tendency to attribute negative events to external, unstable, and specific causes, whereas a pessimistic explanatory style entails the attribution of such events to internal, stable, and global causes. Thus, compared to dispositional optimism, the concept of optimistic explanatory style puts more emphasis on how events are achieved (Peterson, 2000). In a similar vein, the concept of *hope* proposed by Snyder (e.g., Snyder, Sympson, Michael, & Cheavens, 2001) postulates two different positive expectations that make up the essence of a positive outlook for the future: the perceived ability to plan effective strategies and the perception of successful agency regarding one's goals.

Unlike optimism and pessimism, *realism* has so far not been conceptualized as a personality variable, and its defining elements have not been specified. However, clinical psychologists have for decades proposed that reality orientation, including an accurate assessment of oneself and the world, is a central criterion for mental health (e.g., Colvin & Block, 1994). It is commonly assumed that realism entails matching one's beliefs to reality, that is, the actual features of a given situation (cf. Schneider, 2001). This raises the question as to how the match between beliefs and reality can be determined. The most straightforward approach would be to assess the agreement between subjective beliefs and objective criteria such as the actual risk for getting a disease.

However, in most cases, objective criteria for evaluating how realistic subjective beliefs are—such as the objective probability of an event—do not exist. In the absence of objective criteria, social judgments are a viable alternative to determine the realism of beliefs. For example, in research on self-enhancement, overly positive self-perceptions are operationalized as the discrepancy between self-evaluations and evaluations given by independent observers, such as clinical experts, peers, or friends (Colvin, Block, & Funder, 1995; Paulhus, 1998; Taylor et al., 2003). Thus, social judgments provide insights into the collective point of view of a community of judges (Funder, 1999). This collective viewpoint or consensus between judges could serve as an alternative criterion for defining realism, as well as optimism and pessimism.

PRESENT RESEARCH

In the present studies, we used social judgments as a criterion for defining realistic, optimistic, and pessimistic coping reactions. Coping behavior is of particular interest in this context because the beneficial effects of optimism on health appear to be mediated by coping (Aspinwall et al., 2001; Scheier et al., 2001). According to a widespread consensus among the researchers in the field, matching one's coping behavior to the nature of stressful events is considered as the most adaptive coping behavior (e.g., Cheng, 2003; Folkman & Moskowitz, 2004). One could argue that such a flexible behavior should be descriptive of realists, but it appears that optimists, as well, vary their coping behavior according to the characteristics of a situation (Aspinwall et al., 2001; Scheier et al., 2001). Thus, the

question arises as to how optimism and realism can be distinguished, particularly in the context of coping with adversity. Although, in theory, this problem could be solved by using objective criteria for evaluating whether coping behavior is realistic, optimistic, or pessimistic (such as the actual probability of an event), in practice this solution is not feasible because, for many stressful events, such objective criteria do not exist. Therefore, in the present studies, we sought to define optimism, pessimism, and realism in coping with adversity through social judgments.

Our research was based on the assumption that optimism, pessimism, and realism are categories that are already used in everyday life to describe the typical behavior of a certain personality type. Based on this premise, we asked laypersons to name coping responses to stressful events that they considered typical of an optimistic, pessimistic, and realistic person. In most current approaches, optimism and pessimism are defined and measured in terms of cognitions. However, optimism and pessimism may additionally encompass emotional and motivational components (Isen, 2003; Peterson, 2000; Scheier & Carver, 1992). Therefore, our studies also aimed at extending previous research by assessing not only the cognitions conceived as typical of optimistic, pessimistic, and realistic persons, but also their feelings, goals, and actions.

In sum, the present research had three major aims. The first aim was to determine the meaning of the social concepts of optimism, pessimism, and realism by assessing the thoughts, feelings, goals, and actions laypersons nominate as highly descriptive of the respective concepts. To this end, we used a modified version of the act-frequency approach, which operationalizes personality traits by means of the acts that laypersons consider as prototypical manifestations of these traits (Buss & Craik, 1983, 1984). Drawing on Rosch (1975, 1978), Buss and Craik assume that personality dispositions can be analyzed as natural cognitive categories, with the acts characteristic for each category differing in their prototypicality of membership. The second, and related, aim of the present research was to examine the influence of the controllability of stressful situations, which has been found to affect the behavior of optimists in previous research (Aspinwall et al., 2001; Scheier et al., 2001), on the prototypical behaviors attributed to optimistic, pessimistic, and realistic persons. Thus, since we expected person \times situation interactions, our research basically aimed at analyzing "persons in contexts" (Mischel, 2004,

p. 4f). Accordingly, we asked our participants to generate acts typical of an optimistic, pessimistic, and realistic person in dealing with a controllable and an uncontrollable situation, rather than to nominate acts typical of optimists, pessimists, and realists in general. The third goal of our studies was to analyze the relations between the three social concepts, both at the conceptual and the empirical level. In view of previous findings suggesting that optimism may be close to realism (Aspinwall et al., 2001), we were particularly interested in how realism differs from optimism. However, in consideration of the ongoing debate about whether optimism and pessimism may be independent dimensions or constitute the opposite ends of one bipolar dimension, we were also interested in how optimism and pessimism would relate to each other (cf. Carver & Scheier, 2003; Chang, D'Zurilla, & Maydeu Olivares, 1994; Kubzansky, Kubzansky, & Maseiko, 2004; Marshall, Wortman, Kusulas, Hervig, & Vickers, 1992).

The following predictions were made: First, we expected that the lay and the scientific concepts of optimism and pessimism (as described above) would converge. More specifically, we predicted that the acts nominated and rated as typical of optimists would reflect aspects of scientific conceptions of optimism such as positive outcome expectancies (Scheier & Carver, 1985), optimistic explanatory style (Seligman, 1991), generalized self-efficacy, and positive feelings such as hope and confidence. Pessimists, in contrast, should be characterized by acts demonstrating negative outcome expectancies, a pessimistic explanatory style, low self-efficacy expectancies, and negative feelings.

Second, based on the previous literature on the flexibility of behavior shown by optimists, we expected that optimistic goals and behaviors would vary as a function of controllability; in controllable situations, optimists should be described as persisting in goal pursuit and active behavior, whereas, in uncontrollable situations, they should be described by acts reflecting goal disengagement and reorientation (Aspinwall et al., 2001; Scheier et al., 2001). By contrast, pessimists should be described by acts reflecting resignation and withdrawal.

Third, with respect to the acts nominated as typical of realists, no definite predictions could be derived from the existing scientific literature because, to date, realism has not been conceptualized and assessed as a person variable. However, based on the common understanding of realism, we expected that realists would be characterized by acts reflecting appreciation of the situation, acceptance of the facts, a reduced intensity of feelings, and adjustment of goals

and behavior to the situational demands. Specifically, we expected them to be characterized by persisting in goal attainment in the controllable situation and disengaging from the goal in the uncontrollable situation.

OVERVIEW

The present research proceeded in a series of three consecutive studies. In the first study (act nomination), participants were asked to generate acts typical of an optimistic, pessimistic, and realistic person responding to two target situations that differed in perceived controllability. In Study 2 (act selection), a second sample of participants rated the typicality of these acts for the three categories of optimism, pessimism, and realism; a third sample of participants was asked to sort each act into one of three categories (“typical of optimists,” “typical of pessimists,” and “typical of realists”). On the basis of the prototypicality ratings and the sorting task, final lists of highly typical optimistic, pessimistic, and realistic acts for the two target situations were constructed. These two lists were then presented to a fourth sample in Study 3 (act validation). Participants were asked to rate how likely it was that they would perform the given acts in the two target situations. These act reports were correlated with established instruments measuring optimism and related concepts.

STUDY 1: ACT NOMINATION

Study 1 represented the first step of the act-frequency procedure. The primary goal of this study was to identify the acts that are regarded by laypersons as exemplifying typical behavior of optimists, pessimists, and realists. Based on the person-in-context concept underlying this research, act nominations were collected for two target situations that clearly differed in perceived controllability. The target situations were selected in a preliminary study.

Method

Preliminary Study: Selection of Target Situations

Procedure. The two target situations were selected according to the following criteria: They were to be (a) relevant to students (our target population), (b) gender-generic, (c) moderately stressful (threatening), and they

were to (d) differ in the extent to which they were perceived as controllable. To prevent a confounding of the nature of the situation with controllability (cf. Shoda & LeeTiernan, 2002), we aimed at the construction of a situation “pair” holding the basic kind of incident constant, but varying the context. The context information was designed to carry the manipulation of controllability. Based on a brainstorming in which the authors and 15 students took part, the following situation pair that met the four criteria was selected: “A person has fallen in love and told the other person about it. However, he/she is rejected, because the other person would like to get to know him/her a little better first” (controllable) and “A person has fallen in love and told the other person about it. However, he/she is rejected, because the other person does not share his/her feelings” (uncontrollable).

To check the manipulation of controllability, 133 students (62% women; mean age = 22 years, $SD = 2.5$) of different disciplines, with the exception of psychology, were presented with the two scenarios and were asked to rate the stressfulness and the controllability of each situation. Stressfulness was assessed by asking the participants how threatening this situation would be for them, with scores ranging from 1 (*not at all threatening*) to 7 (*very threatening*). Controllability was measured by two items: (a) “To what extent can you affect the further course of this situation by your own behavior?” with scores ranging from 1 (*not at all*) to 7 (*completely*); (b) “How likely is it that the situation will come to a good end through your own efforts?” with scores ranging from 1 (*not at all likely*) to 7 (*very likely*). Because the two items were highly correlated in both situations ($r = .63$ and $r = .75$), the ratings were averaged, yielding a single score for controllability.

The ratings for the two situations differed as expected. The controllable situation ($M = 4.89$, $SD = 1.24$) was perceived as significantly more controllable than the uncontrollable situation ($M = 2.72$, $SD = 1.51$; $t(132) = 16.03$, $p < .001$). Both situations were rated as moderately threatening, but the controllable situation ($M = 3.18$, $SD = 1.70$) was judged as significantly less threatening than the uncontrollable situation ($M = 4.14$, $SD = 1.87$; $t(132) = -7.08$, $p < .001$). Male and female participants did not differ significantly in their ratings, indicating that the target situations were not biased in regard to gender.

Act Nomination

Participants. Participants were 67 undergraduate psychology students (76% women) who received experimental credit in exchange for their voluntary participation. The sample had a mean age of 23 years ($SD = 3.5$).

Procedure. The study had a 3 (personality type) \times 2 (context) between-subjects design. Participants were randomly assigned to one of the six person-in-context conditions. Each participant was presented with one of the two situations described above, which was portrayed as happening to either an optimistic, pessimistic, or realistic person. The participants were asked to imagine how this person would respond to the situation and to nominate the person's (a) thoughts, (b) feelings, (c) goals, and (d) actions. For example, they were asked "What does the optimistic person think in this situation?" By referring to a "person," the sex of the target was not specified. A free answer format was used, and the participants could nominate as many acts as they considered relevant. The participants were instructed to describe each act in terms of precise behavior rather than general behavioral tendencies.

Results and Discussion

In total, the participants generated 92 optimistic, 115 pessimistic, and 117 realistic acts for the controllable situation, and 95 optimistic, 119 pessimistic, and 79 realistic acts for the uncontrollable situation. As required by the instruction, each act list encompassed acts reflecting thoughts, feelings, goals, and actions. The six act lists were subsequently reduced by eliminating (a) redundant acts, (b) act descriptions that were too unspecific or vague (e.g., "The person thinks: Life is futile without love"), or (c) act descriptions that did not match the situation (e.g., "The person thinks: If I get married some day, the marriage will fail"). The reduction of the act lists was performed by the three authors who first independently nominated acts to be dropped according to the three criteria; differences were subsequently resolved by discussion. The remaining act descriptions were then worded in a uniform manner (sentence construction) and phrased in a way suitable for either sex.

The nonredundant act lists for the controllable (uncontrollable) situation consisted of 57 (77) acts for optimism, 74 (69) acts for pessimism, and 65 (58) acts for realism. The number of acts nominated for each concept—the "category volume" (Buss & Craik, 1983)—did not differ significantly in both the controllable situation, $\chi^2(2, N = 196) = 2.21, ns$, and the uncontrollable situation, $\chi^2(2, N = 204) = 2.68, ns$. Thus, the three concepts appeared to be similarly cognitively available.

A comparison of the acts nominated for the three personality types showed that several acts appeared on two, or even all three,

lists, suggesting that the concepts overlap to some extent. However, even the same or similar acts may discriminate between the personality types in terms of their typicality. To examine this possibility, we conducted a second study to investigate which acts are seen as highly typical and distinctive of optimists, pessimists, and realists in coping with the two target situations.

STUDY 2: ACT SELECTION

The major aim of Study 2 was to identify the acts that were most descriptive of, or typical for, the six person-in-context concepts. To identify these highly typical acts, we used a combination of two methods: (a) prototypicality ratings and (b) act sorting. In the first step, acts were preselected on the basis of their prototypicality ratings; in the second step, final act lists were assembled on the basis of the results of a multiple-disposition, act-sorting procedure. The latter method has been suggested by Buss and Craik (1985) as a means of examining to which extent acts are distinctive or common to different personality traits.

Method

Prototypicality Ratings

Participants. The sample consisted of 152 students (61% women) with a mean age of 24 years ($SD = 3.2$). None of them had participated in the first study. Undergraduate students of psychology (42% of the sample) fulfilled a course requirement; the remaining students did not receive any reward for their participation.

Measures and Procedure. For the purpose of the prototypicality ratings, two act lists—one for the controllable and the other for the uncontrollable situation—were created, each including all acts nominated for optimism, pessimism, and realism in Study 1. When assembling the acts across the three concepts, acts that were identical or very similar in meaning were eliminated. After elimination, the two final lists consisted of 156 acts each.

The study had a 3 (personality type) \times 2 (context) between-subjects design. Participants were assigned randomly to one of the six conditions. Each participant was presented the description of one of the two situations and the respective list of acts. The optimistic, pessimistic, and realistic acts were listed in random order. The participants were asked to

imagine how an optimistic (or pessimistic, or realistic) person would react in the described situation and to rate how typical each act was for this person on a 7-point scale ranging from 1 (*not at all typical*) to 7 (*very typical*). A mean rating of $M = 4.5$ (i.e., 0.5 points above the midpoint of the scale, which represents the minimum for an act to be regarded as typical) was defined as the cut-off point for distinguishing high and low prototypical acts. In total, 125 acts in the controllable and 120 acts in the uncontrollable situation received mean ratings above the cut-off point for at least one of the three concepts.

Act Sorting

Participants. Sixty students (60% women) with a mean age of 23 years ($SD = 2.5$) took part in this study. None of them had participated in the first study. Each participant received 5 Euros as compensation for participation.

Measures and Procedure. The sorting task was based on 125 acts for the controllable situation and 120 acts for the uncontrollable situation. Participants were randomly assigned to either the controllable or the uncontrollable situation. They received the description of the target situation and the list of optimistic, pessimistic, and realistic acts that were identified as prototypical for the respective situation. The acts were listed in random order. The participants were asked to sort each of the acts into one of three categories (“typical of optimists,” “typical of pessimists,” and “typical of realists”). Multiple-category placement was permitted, as well as placing an act into the category “typical of neither.”

Results

The results showed that the participants mostly sorted the acts into only one category: for the controllable situation, 88% of the 3.750 judgments (30 participants sorting 125 acts) were single-category placements; for the uncontrollable situation, 87% of the 3.600 judgments (30 participants sorting 120 acts) were single-category placements. The high number of single-category placements indicates that the different acts were seen as predominantly representing one concept, suggesting a high degree of conceptual distinctiveness.

In the next step, acts that were placed into only one category by more than 50% of the participants were classified as typical for the respective category. This cut-off point was chosen because of the high social agreement that is by convention associated with the

Table 1
 Characteristics of Optimistic, Pessimistic, and Realistic Act Lists

	Final act lists	Proto- typicality rating ^a	Act sorting ^b	Act reports ^c	
	<i>N</i> of acts	<i>M</i> (<i>SD</i>)	Agreement (%)	<i>M</i> (<i>SD</i>)	Alpha
Optimism					
Controllable	16	5.77 (1.22)	76	2.81 (0.50)	.90
Uncontrollable	11	5.07 (1.37)	81	2.21 (0.48)	.81
Pessimism					
Controllable	16	5.80 (1.17)	85	2.08 (0.59)	.91
Uncontrollable	15	6.05 (0.99)	82	2.24 (0.62)	.92
Realism					
Controllable	11	4.97 (1.48)	70	3.03 (0.35)	.62
Uncontrollable	9	5.33 (1.29)	70	3.07 (0.38)	.62

Note: ^aMeans and standard deviations of the prototypicality ratings across the selected acts (scale from 1 (*not at all typical*) to 7 (*very typical*)). ^bAverage percentages of judges who placed the selected acts into the corresponding category. ^cMeans, standard deviations and Cronbach's alphas of act reports across the selected acts.

absolute majority. For the controllable situation, 43 out of 125 acts met this criterion (16 acts for optimism, 16 acts for pessimism, and 11 acts for realism). For the uncontrollable situation, 35 out of 120 acts were selected (11 acts for optimism, 15 acts for pessimism, and 9 acts for realism). The first three columns of Table 1 display the relevant summary statistics for the final act lists.¹ As can be seen, the mean prototypicality ratings indicate that the acts were judged as highly typical of the respective concept. Furthermore, the agreement among raters was high, ranging from 70% to 85%. Thus, the final acts were seen as clearly distinctive of the respective category. We may thus conclude that the final act lists encompass those acts that are highly diagnostic of the six person-in-context concepts from the laypersons perspective.

Examination of the acts indicates that their contents reflect the major dimensions used in theory and previous research to define

1. The final act lists can be obtained from Hannelore Weber (weber@uni-greifswald.de).

optimism, pessimism, and realism. In particular, the act lists contain typical cognitions (construal of the situation, outcome expectancies, and explanatory style), feelings, goals, as well as actions (problem-focused and emotion-focused behavior). Therefore, it was possible to compare the social and the scientific concepts using a common language. To obtain a fuller understanding of the characteristic behavior profiles of the six person-in-context concepts, we examined whether and how seven key scientific dimensions of optimism, pessimism, and realism were represented by the acts assigned to the respective concepts. Table 2 provides an overview of the six personality profiles resulting from this examination.

The social concept of optimism was represented by acts reflecting a positive construal of the situation, positive outcome expectancies, optimistic explanatory style, positive feelings, persistent goal pursuit and active efforts toward goal attainment. Behavior in the controllable and the uncontrollable situation differed in three aspects: In contrast to the controllable situation, there were no acts expressing a positive construal in the uncontrollable situation, and the feelings in the uncontrollable situation were mixed. Furthermore, in the uncontrollable, but not in the controllable situation, optimistic attributions were expressed.

Pessimism was exemplified by acts reflecting a negative construal of the situation, in particular catastrophizing and fatalistic thoughts, negative outcome expectancies, pessimistic explanatory style, negative feelings, disengagement from the goal, withdrawal from the situation, and focusing on and expressing distress. This pattern did not differ between the controllable and the uncontrollable situation. In addition to the attributes listed in Table 2, the acts assigned to pessimism also expressed negative self-related cognitions and feelings, particularly self-blame, self-pity, and feelings of shame.

Realism was represented by acts expressing acceptance and equanimity or mixed feelings. Most notably, realists were characterized by adapting their goals and actions to different situations: When the relationship still seemed attainable (controllable situation), they pursued it, albeit in a rather observant manner, that is, manifesting a behavior that can be described as "wait-and-see," indicating that the goal was not abandoned, but nothing would be done to push it. In contrast, when the goal seemed unattainable, realists were seen as disengaging from the goal and withdrawing. In addition, realists were assigned acts that expressed affect-control.

Table 2
Profiles for the Six Person-in-Context Concepts

	Optimism		Pessimism		Realism	
	Controllable	Uncontrollable	Controllable	Uncontrollable	Controllable	Uncontrollable
Cognitions						
Construal of situation	Positive	—	Negative	Negative	Acceptance	Acceptance
Outcome expectancies	Positive	Positive	Negative	Negative	—	—
Exploratory style	—	Optimistic	Pessimistic	Pessimistic	—	—
Feelings	Positive	Positive+negative	Negative	Negative	Neither nor	Positive+negative
Goals	Pursue goal	Pursue goal	Disengage	Disengage	Wait-and-see	Disengage
					affect control	
Actions						
Problem-focused	Active effort	Active effort	Withdrawal	Withdrawal	Wait and see	—
Emotion-focused	—	—	Focus on distress	Focus on distress	—	Affect control

Discussion

Based on the prototypicality ratings and the sorting task, we obtained six lists containing acts that were seen as highly typical and distinctive of optimists, pessimists, and realists in coping with the two target situations. An examination of these acts revealed that, from the layperson's perspective, both optimists and realists adapt their behavior to a certain degree to the differing demands of a situation, whereas pessimists do not. More specifically, realists were described as persons who adapted to a seemingly uncontrollable situation most thoroughly, whereas optimists were seen as adapting only emotionally and cognitively, but not with regard to their goals and actions. By contrast, pessimists were perceived as showing a rigid and dysfunctional pattern of cognitions, affects, and behaviors that showed high affinity to neuroticism, confirming previous findings for the scientific concept of pessimism (Marshall et al., 1992; Scheier et al., 1994; Smith, Pope, Rhodewalt, & Poulton, 1989).

An additional set of studies was conducted to test the generalizability of the findings for a different life domain, achievement-related situations (Vollmann, Renner, & Weber, 2006). Based on a pre-study, two job-related situations were selected: "A person has finished his/her studies and applied for his/her dream job. However, he/she is not accepted, because he/she first has to prove his/her expertise by working there for one day" (controllable) and "... he/she is not accepted, because there is a hiring freeze due to financial shortages" (uncontrollable). Using these two situations, two studies that exactly paralleled the present Studies 1 and 2 were conducted. The results of these studies largely supported the generalizability of the findings of Studies 1 and 2.

STUDY 3: VALIDITY ANALYSES

Study 3 represented the final step of the act-frequency procedure. The three major goals of this study were, first, to obtain self-reports about the likelihood with which the different acts would be performed in the respective situation, and second, to examine the validity of the act lists. These validity analyses were based on four well-established self-report measures of optimism, pessimism, and related positive (and negative) beliefs; namely, measures of dispositional optimism, generalized self-efficacy, hope, and explanatory

style. Third, on the basis of the self-reported frequency of act performances, we explored the statistical relations among the six person-in-context concepts.

Method

Participants

The sample consisted of 208 students (45% women) with a mean age of 23 years ($SD = 2.9$). They received 8 Euros for their participation. None of the students had participated in one of the first two studies.

Procedure and Measures

Participants completed act reports for the two target situations as well as measures of dispositional optimism, self-efficacy, hope, and explanatory style.

Act self-reports. The participants received descriptions of the two target situations and the pertinent lists of the 43 (controllable situation) and 35 (uncontrollable situation) high-typical acts identified in Study 2. Each act list included optimistic, pessimistic, and realistic acts. The acts were rephrased in first-person singular and were arranged in random order. The participants were asked to imagine how they would react in the two situations and to indicate on a 4-point scale ranging from 1 (*definitely false*) to 4 (*definitely true*) to what extent they would perform each act. For each situation, three total scores were computed by averaging the acts for optimism, pessimism, and realism, respectively.

Optimism. Dispositional optimism was assessed using a German version of the revised *Life Orientation Test* (LOT-R; Scheier et al., 1994). The LOT-R consists of six items (plus four filler items), with half of the items framed in an optimistic and pessimistic manner, respectively (i.e., “In uncertain times, I usually expect the best” and “I rarely count on good things happening to me”). Responses were given on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Optimism and inversely coded pessimism items were summed to yield a total score, with higher scores indicating greater optimism. For our sample, Cronbach’s alpha was .72, indicating adequate reliability.

Self-efficacy. To measure generalized self-efficacy, we used the German version of the General Self-Efficacy Scale (GSE; Jerusalem & Schwarzer, n.d.), which contains 10 items, such as “I can usually handle whatever

comes my way.” Items were answered on a 4-point scale ranging from 1 (*not at all true*) to 4 (*exactly true*). The internal consistency of the scale for the present sample was satisfactory (Cronbach’s alpha = .83).

Hope. Dispositional hope was assessed by a German version of the Hope Scale (Snyder et al., 2001), which consists of four items that reflect the agency component (i.e., “I energetically pursue my goals”), four items that reflect the pathway component (i.e., “There are lots of ways around a problem”), and four filler items. Responses were given on a 4-point scale, with scores ranging from 1 (*definitely false*) to 4 (*definitely true*). Agency and pathway items were summed to obtain a total score. This measure yielded a Cronbach’s alpha of .81.

Explanatory style. Explanatory style was measured by using the German adaptation of the Attributional Style Questionnaire (ASQ; Seligman, Abramson, Semmel, & von Baeyer, 1979; German adaptation: Stiensmeier, Kammer, Pelster, & Niketta, 1985) that contains 16 (8 positive and 8 negative) hypothetical situations. In the present study only the eight negative situations (e.g., “You can’t get all the work done that others expect of you”) were used. Respondents were asked to write down the major cause of the situation should it happen to them and to indicate on 7-point scales to what extent the given cause was internal or external, stable or unstable, and global or specific, with scores ranging from 1 (*external/unstable/specific*) to 7 (*internal/stable/global*). The ratings for the eight negative situations were subsequently summed to a total score, with higher scores indicating a pessimistic explanatory style. For the present sample, Cronbach’s alpha was .83.

The intercorrelations among the LOT-R, GSE, Hope Scale, and ASQ were small to moderate, ranging from $r = -.11$ (ASQ–GSE) to $r = .64$ (Hope Scale–GSE). These correlations suggest that LOT-R, GSE, and the Hope Scale measure related but different concepts, whereas the ASQ appears to be largely independent of the three other measures.

Results

Act Self-Reports

The last three columns of Table 1 show the means, standard deviations, and Cronbach’s alphas for the participants’ reports about the likelihood with which they would engage in optimistic, pessimistic, and realistic acts. As can be seen, the reliabilities of the act reports were adequate to high.

The analyses revealed that act reports were partly influenced by the context. Whereas the extent to which realistic acts were reported did not differ for the controllable and the uncontrollable situation, the extent to which optimistic and pessimistic acts were reported varied with the controllability of the situation: Optimistic acts received higher scores in the controllable than in the uncontrollable situation, $t(207) = 16.21, p < .001$; in contrast, pessimistic act scores were higher in the uncontrollable than in the controllable situation, $t(207) = -4.81, p < .001$. In addition, act scores for optimism, pessimism, and realism differed significantly within the two situations: In the controllable situation, $F(2, 414) = 189.54, p < .001, \eta^2 = .48$, realistic acts received higher scores than optimistic acts ($p < .001$), which, in turn, received higher scores than pessimistic acts ($p < .001$). In the uncontrollable situation, $F(2, 414) = 180.65, p < .001, \eta^2 = .47$, realistic acts were reported to a higher extent than optimistic and pessimistic acts (p 's $< .001$), with no significant differences between optimistic and pessimistic acts.

Sex differences were found for the pessimistic and realistic acts in both the controllable and the uncontrollable situation. In both situations, women were more likely than men to report that they would probably engage in pessimistic acts, $M = 2.17, SD = .56$ vs. $M = 1.98, SD = .61, t(206) = 2.31, p < .05$ (controllable situation), and $M = 2.33, SD = .64$ vs. $M = 2.13, SD = .58, t(206) = 2.30, p < .05$ (uncontrollable situation). Women were also more likely than men to report that they would engage in realistic acts, $M = 3.09, SD = .31$ vs. $M = 2.97, SD = .37, t(206) = 2.54, p < .05$ (controllable situation), and $M = 3.16, SD = .34$ vs. $M = 2.97, SD = .40, t(206) = 3.65, p < .001$ (uncontrollable situation). Men and women did not differ in their expected probability of engaging in optimistic acts.

Intercorrelations Among Act Reports

The intercorrelations among the six act reports are shown in Table 3. Examination of the Table indicates two main findings. First, in both situations, optimism and pessimism scores were negatively related to each other, suggesting that optimism and pessimism are different, albeit related dimensions. Second, in the controllable situation, realism scores were positively associated with optimism scores and negatively associated with pessimism scores; whereas in the

Table 3
Correlations Between Optimistic, Pessimistic, and Realistic Act Reports Within and Across the Situations

	Optimism	Pessimism	Cross-situational correlations
Pessimism			.71**
Controllable	-.42**		
Uncontrollable	-.31**		
Realism			.56**
Controllable	.40**	-.19**	
Uncontrollable	-.02	.08	
Optimism			.39**

Note: ** $p < .01$, two tailed.

uncontrollable situation, realism scores were unrelated to both optimism and pessimism scores.

Table 3 (last column) shows the cross-situational correlations for the optimistic, pessimistic, and realistic act reports. All consistency coefficients were substantial and significant, indicating at least moderate behavioral consistency across the two target situations. As can be seen, the cross-situational consistency was highest for the self-reported pessimistic behavior pattern.

Intercorrelations Among Act Reports and Dispositional Measures

The correlations of the six act reports with measures of dispositional optimism and conceptually related measures are presented in Table 4. As expected, the optimistic act reports were positively correlated with dispositional optimism, self-efficacy, and hope. In addition, these dispositional measures were also positively correlated with the realistic act reports. Also as predicted, the pessimistic act reports were negatively correlated with the optimism measures and positively correlated with pessimistic explanatory style. Contrary to expectation, however, optimistic act reports were unrelated to explanatory styles, as were realistic act reports. Overall, the controllability of the situation did not appear to substantially affect the correlations.²

2. Additional analyses including separate subscales for optimism and pessimism from the LOT-R instead of the total LOT-R scale yielded a highly similar pattern of correlations with the act reports.

Table 4
Correlations of Act Reports With Established Optimism Measures

	Optimism Act List	Pessimism Act List	Realism Act List
LOT-R			
Controllable	.27**	– .44**	.22**
Uncontrollable	.18**	– .44**	.15*
GSE			
Controllable	.29**	– .34**	.32**
Uncontrollable	.28**	– .36**	.28**
HOPE			
Controllable	.23**	– .38**	.23**
Uncontrollable	.14 ^(*)	– .37**	.14*
ASQ			
Controllable	– .03	.19**	– .01
Uncontrollable	– .09	.28**	– .01

Note: LOT-R = Life Orientation Test, GSE = Generalised Self-Efficacy Scale, HOPE = Hope Scale, ASQ = Attributional Style Questionnaire. ^(*) $p = .05$. * $p < .05$. ** $p < .01$, two-tailed.

Discussion

Two main findings emerged from Study 3. First, judged by the participants' self-reports, acts characteristic for realism were the most likely behaviors in both stressful situations. Optimistic behavior was reported as the second most likely behavior, but only if the situation was controllable. In the uncontrollable situation, the self-reported probability of engaging in optimistic and pessimistic behavior did not differ. Second, attesting to the validity of the act lists generated in Studies 1 and 2, the act reports for optimism and pessimism correlated as expected with dispositional optimism and related measures. Act reports for realism also appeared to be associated with the optimism measures. Findings from an additional study, in which we replicated Study 3 using two situations (controllable vs. uncontrollable) from the job domain, suggested that the results from Study 3 can for the most part be generalized to this different context (Vollmann et al., 2006).

GENERAL DISCUSSION

Based on a modified version of the act frequency method, we investigated the social concepts of optimism, pessimism, and realism. In a

series of three studies (plus three ancillary studies that replicated Studies 1 to 3 in a different life domain; Vollmann et al., 2006), we investigated the prototypical acts that laypersons assign to optimists, pessimists, and realists in controllable and uncontrollable stressful situations. We will summarize the findings of our present research by focusing on the three issues that were of main interest in our studies: First, the meaning of the social concepts of optimism, pessimism, and realism that emerges from the acts nominated as prototypical of the respective concept. Second, the influence of the context, particularly controllability, on the prototypical behavioral patterns assigned to the three personality types. And third, the conceptual and empirical relations among the three social concepts. The three issues are closely interrelated, and the pertinent findings of our studies combine into a coherent picture.

The social concepts of optimism, pessimism, and realism. Overall, the prototypical acts assigned to optimists and pessimists reflected the cognitive attributes (generalized outcome expectancies, attributions, self-efficacy) used in the literature to define the corresponding scientific concepts. In addition, the acts expressed the feelings, goals, and actions that were found to be associated with optimism and pessimism in previous research (Aspinwall et al., 2001; Scheier et al., 2001).

The correspondence between the social and the scientific concepts that became evident by the act contents was also supported by the results of the validity analyses. As expected, self-reports on the probability to engage in optimistic and pessimistic acts were significantly related to corresponding measures of dispositional optimism, self-efficacy, hope, and explanatory style. However, these correlations were of small to moderate size, which can be explained by two reasons. First, the relations between situation-specific behaviors and dispositional measures are generally small, partly indicating measurement problems due to single-instance assessments, but also reflecting the substantial influence of context on behavior (e.g., Mischel, 2004; Mischel & Shoda, 1995; see also Carver & Scheier, 1994; Segerstrom, Taylor, Kemeny, & Fahey, 1998). Second, the measures for assessing the scientific concepts of optimism, self-efficacy, hope, and explanatory style focus on cognitions, whereas the act lists representing the social concepts were multifaceted, including not only

thoughts but also feelings, goals, and actions. Considering that the instruments for measuring the social and the scientific concepts differed in focus, the obtained convergent validity is, in fact, noteworthy.

More generally, the multifaceted nature of the social concepts of optimism, pessimism, and realism supports our view that the corresponding scientific concepts, too, should be understood as cognitive, affective, motivational, and behavioral patterns, rather than purely cognitive dispositions (see also Peterson, 2000). Although it could be argued that the multifaceted nature of the social concepts was mainly the result of explicitly asking the participants to nominate thoughts, feelings, goals, and actions, the ease with which this was done suggests that the common understanding of the three personality types indeed encompasses cognitive, affective, and motivational elements. The multifaceted behavioral patterns emerging from the act nominations are particularly consistent with Mischel's (2004) approach to personality and personality types. In his view, personality types reflect persons who share a characteristic pattern of thoughts, feelings, goals, and behaviors in appraising and responding to distinctive kinds of situations.

Influence of context. The overall picture of optimism, pessimism, and realism that emerged from summarizing the acts across the target situations can be further refined by taking context effects into account. As expected, the behavior patterns assigned to the different personality types, in particular those characteristic for optimists and realists, varied with the controllability of the situation. In addition, life domain turned out to play a role (Vollmann et al., 2006).

Optimists were seen by laypersons as adjusting their feelings and thoughts to the situation, but not necessarily their goals and actions. While they were seen as construing the situation less positively and feeling less positive when the goal was unattainable, they were described as persistently pursuing their goals in both the controllable and the uncontrollable situations. Thus, the social concept of optimism seems to imply that optimists are people who never give up. This stands in contrast to previous findings for the scientific concept of optimism, which have shown that optimists tend to disengage from unattainable goals (Aspinwall et al., 2001; Scheier et al., 2001). One possible reason for these intriguing points of divergence between the social and the scientific concept of optimism may be that the goals implicit in the uncontrollable target situations—winning

the love of another person who does not share one's feelings and getting a job despite a recruitment stop (see Vollmann et al., 2006)—were not consensually regarded as unattainable. Although the mean controllability ratings indicated that these situations were indeed judged as rather uncontrollable, the remaining variance in perceived personal control documents the interpretive latitude (cf. Schneider, 2001) that existed even in these situations. For future research, it would be particularly interesting to investigate whether optimists are seen as interpreting events as more controllable than realists and pessimists, thereby leading them to persist in goal attainment.

Although optimists thus appeared to be characterized by cognitive and emotional adaptations to uncontrollability, the ultimately more important motivational and behavioral adaptation expected of optimists from the scientific point of view was not found for optimists, but only for realists: Realists pursued attainable goals (albeit reluctantly and cautiously rather than pushing things) but disengaged from goals when they seemed unattainable and reengaged in alternative goals when such reengagement appeared promising (such as in the uncontrollable job situation; Vollmann et al., 2006). Thus, we may conclude that with respect to their goals and actions, the "social" realists correspond to the "scientific" optimists. Finally, whereas both optimists and realists appeared to change their cognitions, feelings, or behavior as a function of controllability, pessimists did not: In both the controllable and the uncontrollable situation, pessimists were characterized by negative, self-deprecating construals of the situation, negative outcome expectancies, giving up the goal, withdrawal, and a focus on distress.

Together, our findings suggest that context sensitivity and flexibility may be a significant feature that distinguishes the three personality types. Applying Mischel's view, according to which, persons (or personality types) can be characterized by person-specific "behavioral signatures" (Mischel, 2004; Mischel & Shoda, 1995), different forms of person \times situation interactions can be assigned to the three social concepts. The profile assigned to the prototypical pessimists was characterized by cognitive, affective, motivational, and behavioral invariance in response to the target situations, reminiscent of the classical trait concept. This tendency toward invariance in the act patterns was confirmed by the remarkably high cross-situational intercorrelation found for the self-reports of pessimistic act performances. One possible explanation for the high

transsituational consistency of the social concept of pessimism may be its conceptual affinity to neuroticism, which is known to be a broad and consistent disposition to focus on the negative aspects of experiences (Marshall et al., 1992; Scheier et al., 1994; Smith et al., 1989). In contrast to pessimists, optimists and realists were assigned acts indicating person \times situation interactions, albeit to a varying degree: Optimists were assigned a profile characterized by flexibility in thoughts and feelings but invariance in goals and actions, whereas the act profiles assigned to realists varied on all of these aspects.

Conceptual and empirical relations among the social concepts of optimism, pessimism, and realism. The just-reported findings are particularly interesting in view of the discussions about the definition of realism and its distinction from optimism (and pessimism). According to social understanding, realists, even more so than optimists, are characterized by adjusting their goals and actions to situational demands. The close relation between realism and optimism found in previous research (e.g., Armor & Taylor, 1998; Aspinwall et al., 2001; Schneider, 2001) was only partly supported for the social concepts of realism and optimism: The two personality types appeared to be related when the goal was attainable but distinctive when the goal was unattainable. This was mainly due to the fact that realists were seen as adjusting their goals and actions to the situational demands, whereas optimists were not.

With respect to the act reports, it was found that the correlations between optimistic and realistic act reports and the dispositional measures of optimism, self-efficacy, and hope, differed only little for the controllable and uncontrollable situations. Realistic and pessimistic act reports turned out to be weakly, but negatively, correlated in the controllable situation; they were not significantly related in the uncontrollable situation. These findings disconfirm the notion of a positive association between realism and pessimism implied by the research on “depressive realism” (Alloy & Abramson, 1988; see also Taylor & Brown, 1988).

At the conceptual level, optimism and pessimism appeared to be neither independent nor as constituting a bipolar dimension, adding to similar conclusions drawn in an ongoing debate. Empirically, the relationships between the two concepts, as measured by the self-reported probability of act performances, were found to be in the moderate range, also confirming previous findings (Chang et al.,

1994; Chang & McBride-Chang, 1996; Kubzansky et al., 2004; Marshall et al., 1992; Scheier et al., 1994). Thus, the social concept of pessimism clearly appears to be more than just the opposite of optimism, and this may be mostly due to elements that reflect neuroticism, which are absent from optimism.

Limitations. Five limitations of the present research need to be noted. First, the results and the conclusions we have drawn from them, are based on only two target situations that, although differing in controllability, depicted only one stressful event. Although the similarity of the results obtained for a different context attests to the generalizability of the findings (see Vollmann et al., 2006), additional studies focusing on still other life domains would be desirable. In particular, it would be interesting to examine optimism, realism, and pessimism with respect to health-related situations. Second, in the present studies, the target situations did not only differ in perceived controllability (as intended), but also in perceived stressfulness. Thus, although the interpretation of our results focused on differences in controllability, an alternative interpretation in terms of differences in stressfulness is possible. Although perceived controllability and threat are likely to correlate (e.g., because perceived lack of controllability usually increases stress), it would be advisable in future studies to independently vary the two dimensions to prevent a confounding of controllability with threat.

A third limitation of our research was that the findings are based on student samples and, more specifically, on German students. According to Buss and Craik (1985) act nominations may vary with background variables such as age and socioeconomic status. Given that our research aims at exploring social concepts that are consensually held by many members of a given society, it would be important to examine whether our findings can be generalized across different social subgroups within this society. And, if such a broader social consensus can be documented, it would be interesting to expand the research further by cross-cultural comparisons. Fourth, both the data on the likelihood with which participants would engage in prototypical acts and the measurement of optimism and related constructs used to examine the validity of the act lists were based on self-report techniques. Therefore, response sets, in particular the tendency to respond in a consistent manner, may have increased the correlations among the measures. Note, however,

that we tried to minimize this source of bias by using independent samples in the different studies. In particular, estimates of the acts' prototypicality and self-reports of the probability of engaging in prototypical acts were obtained from different individuals.

A fifth limitation of our research concerns the open response format used for the act nominations. Variations in instructions are needed to examine to what extent the present findings are the results of the specific instructions used in our studies. For example, one interesting variation in instruction would be *not* to ask explicitly for thoughts, feelings, goals, and actions; this would allow us to determine whether the multifaceted nature of the social concepts of optimism, pessimism, and realism also will appear spontaneously. Another possible variation of the procedure would be to examine the number of acts nominated per unit of time (Buss & Craik, 1983). This method would allow us to examine in more detail the extent to which the three social concepts are cognitively available, as indicated by the speed with which typical acts are produced.

CONCLUSIONS AND IMPLICATIONS

Given that adjusting one's behavior to situational demands is the most effective coping behavior (Cheng, 2003; Folkman & Moskowitz, 2004), realists appeared to be masters of adaptation, at least from the social point of view. By contrast, pessimists are described by a behavior pattern that seems to be certainly dysfunctional, both for the controllable and uncontrollable situations. However, it seems that realists have to pay a price for their adaptive behavior in form of a reduced intensity of feelings and fairly "uninspired" behavior, even when the goal seems still attainable. Compared to the active and cheerful efforts toward goal attainment assigned to optimists in the controllable situation, realists were described in terms of a more reluctant and observant behavior. That is, realists were seen as reacting rather than acting. This was also reflected in the finding that the realists were not assigned particular outcome expectancies. This suggests that realists may be seen as refraining from making prognoses and as sticking to the present, reacting to the situational demands and social cues at hand.

The described adaptational implications of the social concepts of optimism and realism seem to support the process-related view of setting goals and implementing them that has been documented in

previous research on the influence of deliberative-implemental mindset on positive illusions (Taylor & Gollwitzer, 1995). Basically consistent with these findings, the present results suggest that realism may be the most adaptive strategy in the process of goal setting, i.e., when one decides whether a goal is likely to be successful or not. Fitting one's goals to the situational demands appeared to be the strength of the realists. However, once a goal has been defined—implying that it is attainable—optimistic behavior seems superior to realism in terms of the positive feelings experienced and the active, inspired efforts toward goal attainment. Thus, according to the social understanding, it may be best to start out as a realist and proceed as an optimist if the goal is attainable; however, one should never act as a pessimist.

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