

# Perceiving the Causes of Unemployment: An Evaluation of the Causal Dimensions Scale in a Real-Life Situation

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The perceived causes for employment (success) and unemployment (failure) were considered in a longitudinal study with 378 higher professional graduates, who completed a questionnaire shortly before (imaginary situation) and 6 months after their final exam (real-life situation). The design permitted a comparison for the same subjects of causal attributions for an initially imaginary occurrence that eventually became real. Although the results indicate some inadequacies in the internal structure of the Causal Dimensions Scale (CDS), the subscale structure was found to be invariant across conditions (success/failure) and situations (imaginary/real-life). Furthermore, the CDS showed a considerable divergent validity. The perceived causes for (un)employment were consistent with the literature suggesting a self-serving attributional bias. Contrary to expectation the subjects did not change their causal perceptions when becoming actually (un)employed. Indications were found for a self-serving motivational bias, resulting in labor-market success for those who are initially optimistic and motivated to find a job.

The Causal Dimensions Scale (CDS) was designed to overcome what Russell (1982) called the "fundamental attribution research error." In traditional attribution research this error typically occurs when attributions made by the subject are "translated" by the researcher into causal dimensions such as internal-external and stable-unstable. These causal dimensions are inferred through logical and empirical analysis and reflect psychologically meaningful properties or characteristics of causal attributions. In other words, they identify the underlying structure of perceived causality (Weiner, 1985).

Attributional statements are often ambiguous (Ross, 1977) and even if they are not, the attributor and the researcher may differ in perceiving the particular cause (Kruglanski, 1980). As Russell (1982) pointed out, this problem does not arise when the CDS is used, simply because the subject rather than the researcher does the coding or translation of the perceived cause into attributional dimensions.

The relevance of causal dimensions has been established from various different theoretical viewpoints. Weiner (1985) highlighted the importance of causal dimensions in understanding the emotional reactions in achievement settings. Abramson, Garber, and Seligman (1980) emphasized the etiological role of causal dimensions in relation to learned helplessness.

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A serious problem of attributional research with the CDS thus far is that it has been used almost exclusively in achievement settings (McAuley & Gross, 1983; McAuley, Russell, & Gross, 1983; Russell & McAuley, 1986; Russell, McAuley, & Tarico, 1987). Because the CDS was designed to assess the causal perceptions of the subject in a particular situation, it can be hypothesized that this situation is an important parameter in the evaluation of the instrument. Thus, in addition to attributional research on achievement in laboratorylike settings, there is still a great need for studies in real-life situations, as was pointed out by Russell (1982) and McAuley and Gross (1983). Following the same logic, it can be argued that the particular real-life situation may in turn influence the instrument's evaluation. It is, however, impossible to assess the structure of causal dimensions independently from a specific situational context. This fundamental problem can only be solved empirically by investigating the structure of causal dimensions in various situations.

In the present study, the CDS was evaluated in (un)employment, a complex real-life situation. Warr (1984) reviewed the literature on the psychosocial effects of unemployment and recognized that causal attributions are among the major moderating variables. The precise nature of the moderating effect is not yet well understood, despite much research in this field by Feather and his Australian colleagues. A relation has been shown to exist between *external* causal attributions and situation-specific depressive affect as well as between *internal* causal attributions and a more general depressive symptomatology (Feather, 1982, 1983b; Feather & Barber, 1983; Feather & Davenport, 1981). The first relation concerning the external attribution is explained within the framework of the expectancy-value theory and the second relation with reference to the learned helplessness model.

According to Feather (1983a), causal attributions for unem-

ployment "can be understood not only as products of cognitive processing, but as social products as well" (p. 229). As a cognitive structure, these attributions mediate the psychosocial effects of unemployment; as a social product they can be studied in their own right. This was done in two cross-sectional studies among schoolchildren and students who had no experience with unemployment. The general conclusion was that they tended to blame the unemployed more for their condition than the actual unemployed in the studies of Feather and Davenport (1981) and Feather and Barber (1983) did. This is explained by pointing to the "actor" status of the unemployed in contrast to the "observer" status of the schoolchildren and students (see Jones & Nisbett, 1972). Because the studies involved were cross-sectional, no answer can be given to the question of whether these causal attributions change during actual unemployment as a result of the shift in status from observer to actor. In a recent longitudinal study, Feather and O'Brien (1986) provided some limited evidence for the influence of employment status on causal attributions of unemployment, although they did not investigate this shift in particular. A major purpose of the present prospective study is to answer this question.

In the studies on unemployment mentioned, the perceived causes of unemployment were measured with two procedures. Feather (1982, 1983b) used a method similar to the Attributional Style Questionnaire (Peterson et al., 1982), which assesses the causal attributional pattern across different situations along three dimensions: internal-external, stable-variable, and global-specific. In the remaining studies a list of several reasons for being unemployed was presented to the subjects (Feather, 1983a, 1985; Feather & Barber, 1983; Feather & Davenport, 1981; Feather & O'Brien, 1986). Following this approach, causal attributions are not assessed but rather inferred. Sometimes the single reasons or causal perceptions used in this list are a priori classified into causal dimensions (Feather, 1983a; Feather & Barber, 1983). In most cases, however, the questionnaire is factor analyzed and a different number of causal factors emerges. Feather and Davenport (1981) obtained 11 factors, whereas Feather (1985) reported two studies in which 7 and 6 attributional factors were found, respectively. Feather and O'Brien (1986) obtained 4 factors. In addition to these causal factors, which reflected the perceived causes of unemployment, the internal causal attribution was assessed by asking a single question ("How much do you think you are to blame for your unemployment?"). The correlations between this dimensional measure of (internal) causal attribution and the causal factors resulting from the questionnaire of reasons were either very low or moderately positive. This can be explained by referring to the fundamental attribution research error. The causal factor Personal Handicap, for example, can be attributed differently on the internal-external dimension by various subjects. One can attribute this handicap internally referring to personal inadequacies, but one can also externally blame society for not providing enough jobs for the handicapped. So, perceived causes of unemployment, clustered in several causal factors, do not correspond clearly to causal dimensions, illustrating the ambiguity of causal perceptions in relation to underlying causal dimensions. The way in which the causal perceptions of unemployment are operationalized thus far does not avoid the fundamental attribution research error. The CDS, which was de-

signed to overcome such an error, can therefore make an important contribution in this area of research.

In this study, four questions will be investigated:

1. To what extent can the CDS be used to assess causal dimensions in a complex nonachievement real-life situation such as (un)employment? In other words, what can be said about the internal structure of the CDS in such a setting?
2. What is the divergent validity of the CDS in relation to locus of control and perceived control over unemployment?
3. Is there a difference between the assessment of causal dimensions for employment (the success condition) and unemployment (the fail condition)?
4. Does this difference exist for the imaginary as well as for the real-life situation, where subjects are observers and actors, respectively?

## Method

### Subjects

A total of 635 subjects (42%) returned a questionnaire, which was sent by mail to 1,524 students of 16 different professional courses in the North of The Netherlands, shortly before their final exam in the summer of 1984. A follow-up was administered 6 months later, and 546 subjects (86%) responded to the follow-up. One hundred ninety-four (35%) were unemployed, 184 (34%) found a job, and 168 (31%) were either in military service or continued their education at university. The latter two groups were excluded from data analysis, because (un)employment remained hypothetical at the follow-up, so eventually 378 subjects participated in this study. The mean age of the sample was 23 years ( $SD = 2.2$ ), 54% ( $n = 206$ ) were male, and 46% ( $n = 172$ ) were female.

### Measures

The questionnaire was divided into two sections. The first section consisted of single items concerning the (un)employment situation, which is of no further interest here. We shall return to this part of the study only when discussing the results. The second section contains several multi-item measures.

A Dutch translation of the Causal Dimensions Scale (Russell, 1982) was administered. The translation was performed by the present author and carefully checked by a research assistant with a master's degree in English. This scale is subdivided into three attributional dimensions, all consisting of three items: locus of causality, stability, and controllability. The free-response causal attribution by the subject was self-assessed along these three dimensions on a 6-point (originally 9-point) rating scale. Russell (1982) reported an internal consistency (alpha coefficient) of .87, .84, and .73, respectively. McAuley and Gross (1983) and Russell et al. (1987), however, described slightly lower values (.88, .76, and .52; .79, .86, and .51, respectively). The difference in internal consistency of the Controllability subscale is striking.

Shortly before their final exam each subject was required to complete the CDS twice by using time projection, once imagining being unemployed after 6 months (the imaginary failure condition), the second time imagining having found a job within 6 months (the imaginary success condition). Following the general CDS instructions, subjects were requested to write down the most important cause for each case (i.e., unemployment or employment) and to complete the questionnaire with this particular cause in mind. At the follow-up 6 months later, the subjects were requested to complete the CDS once more. This time, however, they responded according to their (un)employment situation at that time. The unemployed experienced a real failure condition, the em-

ployed a real success condition. So, by this design it was possible to compare the same subjects' scores on the CDS dimensions of the imaginary condition with those of the real-life condition 6 months later.

The *Rotter Scale of Internal Versus External Control* (Rotter, See-man, & Livernant, 1962) was administered in a shortened Dutch version. This version has a satisfactory internal consistency and has proven to be valid with respect to several external criteria derived from the literature (Andriessen & Cadsand, 1983). According to Mirels (1970), two components—internality and externality—are distinguished in the present study, which was a continuation of a pilot study with 333 graduate students (Schaufeli, 1986). In this pilot study alpha coefficients of .77 for the Internality subscale (6 items) and .67 for the Externality subscale (9 items) were found, whereas the intercorrelation between the two subscales was  $-.28$ . In the present study the alphas for the internality subscale on the two administrations were .75 and .73 for the Internality subscale and .68 and .70 for the Externality subscale. The intercorrelations between the subscales are exactly the same on both occasions:  $-.23$ .

Perceived control over unemployment was measured by a questionnaire constructed by the author consisting of two components: collective control perception (indicated by items such as "It is important that as many people as possible take action against job abolition") and individual control perception (indicated by items such as "If people were less particular the unemployment rate would be much lower"). This measure was also previously tested in a pilot study with 128 graduate students. The internal consistency (alpha) of the first component was .75 and of the second component .69. Both components consisted of 7 items; the intercorrelation was  $-.15$  (Schaufeli, 1986). In the present study the alphas on both administrations were .72 and .79 for the individual control and .75 and .73 for the collective control. Finally, the intercorrelations between the two components were  $-.15$  and  $-.19$  on both occasions.

## Results

### Evaluating the CDS

To assess the internal structure of the CDS in a complex real-life situation the perfectly congruent structure (PCS) approach was used (Ten Berge, 1986b), a method related to the multiple group method of confirmatory analysis (Nunnally, 1978). The basic assumption of the PCS approach is that a certain component structure is always retrieved in an empirical data set (perfect congruence). The question is, however, to what extent that happens. To explore this, a binary target matrix was constructed, representing the hypothesized a priori three-component composition of the CDS. This matrix was released on the correlation matrix of the CDS items, allowing for an oblique structure and an optimal fit to the empirical data. The results of the PCS analysis indicate (a) the strength (explained variance) of each a priori component or subscale; (b) the total amount of variance explained by all components together (because of the oblique rotation, this amount is by definition less than the total amount of variance computed by adding the separate variances); (c) the correlations between the components; and (d) the internal consistency (coefficient alpha) of each component. With these four criteria in mind one can determine to what extent the assumed a priori subscale structure of the CDS returns empirically in the present study.

A separate PCS analysis was carried out for the imaginary success (employment) and imaginary failure (unemployment) condition. This analysis yielded a substantial negative correla-

Table 1  
*Perfect Congruent Structure Analysis of the Causal Dimensions Scale (Follow-Up N = 378)*

Condition and subscale	LOC	STA	CON	% variance	$\alpha$
Failure ( $n = 194$ )				65	
LOC	—			33	.89
STA	.14*	—		18	.71
CON	.22**	$-.11$	—	17	.52
Success ( $n = 184$ )				62	
LOC	—			33	.87
STA	$-.32$ ***	—		19	.60
CON	.13*	$-.18$	—	16	.56

Note Failure = unemployment; Success = employment; LOC = Locus of Causality; STA = Stability; CON = Controllability.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

tion between the two strongest components, locus of causality and controllability ( $-.48$  in the success condition;  $-.30$  in the failure condition).<sup>1</sup>

Inspection of the items of the Controllability subscale reveals that two out of the three items included both an internal as well as an external locus of controllability dimension (e.g., "Is the cause controllable by you or other people" vs. "... uncontrollable by you or other people"). It was decided to split both two-dimensional controllability items according to their locus in order to improve the internal structure of the CDS (e.g., "Is the cause controllable by you" vs. "... uncontrollable by you" and "Is the cause controllable by other people" vs. "... uncontrollable by other people"). The total number of CDS items therefore increased from 9 to 11 in the follow-up. A principal-components analysis with varimax rotation on this modified 11-item CDS-version showed that the internal controllability items load substantially (i.e., .86 and .89) on the locus component, whereas the external controllability items load (.78 and .77) on the original controllability component. In analyzing the follow-up a modified 5-item Locus of Causality subscale was used, the interpretation of which remained the same: A high score indicated an *internal* locus of causality. The number of items of the Controllability subscale did not change, but the interpretation shifted; a high score indicated *external* controllability.

Table 1 shows the results of the PCS analysis of the modified 11-item CDS at the follow-up.

Splitting up the two-dimensional controllability items according to their locus resulted in a strengthening of the locus of causality component and a weakening of the controllability component, both in respect of variance explained and internal consistency. The correlation between the two components decreased dramatically, indicating that the new (external) controllability and locus of causality dimensions are more independent than they were originally on the first administration. Furthermore, the alpha coefficients showed that the locus dimension was the only one with sufficiently internal consistency, according to the strict standard of Nunnally (1978), who argued that

<sup>1</sup> Detailed results from this analysis can be obtained from the author.

Table 2  
*Second-Order Principle-Components Analysis After Varimax Rotation*

Subscale	First administration				Follow-up			
	A (n = 378)		B (n = 378)		C (n = 194)		D (n = 184)	
	A1	A2	B1	B2	C1	C2	D1	D2
LOC	-.28	<b>.46</b>	-.21	<b>.84</b>	.12	<b>.75</b>	<b>.71</b>	-.20
STA	.03	<b>.53</b>	.04	-.49	-.06	<b>.56</b>	-.71	.11
CON	-.03	-.83	.07	-.77	.06	<b>.53</b>	<b>.58</b>	.21
INT	<b>.66</b>	-.27	<b>.79</b>	-.07	<b>.83</b>	-.07	-.27	<b>.76</b>
EXT	-.40	.34	-.44	-.22	-.33	.06	-.17	-.68
ICP	<b>.71</b>	-.04	<b>.77</b>	.04	<b>.81</b>	.03	-.18	<b>.60</b>
CCP	-.61	-.24	-.42	.09	-.21	.38	.26	-.14
% explained variance	22	20	23	22	22	18	26	17

Note LOC = Locus of Causality; STA = Stability; CON = Controllability; INT = Internal Locus of Control; EXT = External Locus of Control; ICP = Individual Control Perception; CCP = Collective Control Perception. In Condition A all subjects imagined the cause of their hypothetical unemployment. In Condition B the same subjects imagined the cause for hypothetical employment. In Condition C subjects experienced actual unemployment and in Condition D actual employment. Component loadings  $|\geq .40|$  on one component and  $|\geq .30|$  on the other components are in boldface.

for most research, values as high as .70 are satisfactory (p. 245).<sup>2</sup> Finally, the overall amount of explained variance is satisfying (about two thirds).

A complementary component invariance analysis (Ten Berge, 1986a) shows that all three components were invariant across the imaginary as well as the real-life success and failure conditions. The invariance coefficients (Tucker's phi) in both conditions were respectively .96 and .96 (locus of causality), .95 and .95 (stability), and .97 and .93 (controllability). A congruence as high as .85 indicates that the interpretation of the corresponding components was judged equally by component analytic experts (Haven & Ten Berge, 1977).

#### *Validity Aspects of the CDS*

To assess the convergent validity of the CDS, four second-order components analyses with subsequent varimax rotation were carried out for each of the conditions (imaginary failure, imaginary success, real-life failure, and real-life success). These analyses included the three CDS subscales (Locus of Causality, Stability, and Controllability), Rotter's scales of internal and external locus of control, and the two measures of perceived control over unemployment. In the left part of Table 2 the analyses of the first administration (imaginary condition) are presented. In this condition all subjects completed the CDS twice, once imagining being unemployed and once imagining having found a job. In the right part of the table the analyses that refer to the real-life situation, 6 months later, are presented.

In three of the four analyses, three components with eigenvalues greater than 1 emerged. (The analysis of the imaginary success condition revealed four components with eigenvalues greater than 1). A two-component structure, however, emerged systematically that could be interpreted simply, as can be seen from Table 2. The first component can be interpreted as personal control, particularly including internal locus of control and perceived individual control. The external locus of control and perceived collective control load negatively and somewhat

less substantially on this component. The second component can be easily identified as causal attribution, including all CDS subscales. As a result of the modification of the CDS the structure of this component changed at the follow-up compared with the first administration. The controllability loading decreased and the sign reversed from positive to negative.

In order to investigate the invariance of this second-order two-component structure across the success and failure conditions in the imaginary and real-life situations, Tucker's phi coefficients were computed again. These congruence coefficients were, for the components A1 and B1, .98; for A2 and B2, .55; for C1 and D2, .87; and for C2 and D1, .38. The off-diagonal elements were low (-.27 and -.25 on the first administration, .13 and .12 on the follow-up.) It follows that the personal control component was invariant across the success and fail conditions in the imaginary as well as in the real-life situation. But, on the other hand, the second-order causal attribution component was by no means invariant across the conditions. The Stability subscale shows a rather different picture in the success and failure conditions. In the success condition (imaginary and real-life), stability substantially interrelated positively with locus of causality, whereas this interrelation was nearly absent in both failure conditions.

In sum, the causal dimensions assessed by the CDS were independent from locus of control as well as from the perceived control over unemployment. The relations between the three causal dimensions, however, differed depending on whether the attribution referred to success or to failure. This did not hold for the locus of control and the perceived control over unem-

<sup>2</sup> About two decades ago Nunnally (1967) stated that "In the early stages of research . . . on hypothesized measures of a construct, . . . reliabilities of .60 or .50 will suffice" (p. 226). Thus, the reliability standards for this kind of research have risen. Nunnally (1978), however, argues as before that for "basic research, . . . increasing reliabilities much beyond .80 is often wasteful of time and funds" (p. 245; see also Nunnally, 1967, p. 226).

Table 3  
Mean Ratings for the Attribution and Control Measures (First Administration  $N = 378$ )

Subjects	CDS <sup>a</sup> (success condition)			CDS <sup>a</sup> (fail condition)			Locus of Control <sup>b</sup>		Perceived Control <sup>b</sup>	
	LOC	STA	CON	LOC	STA	CON	INT	EXT	ICP	CCP
Employed ( $n = 184$ )	4.8	7.5	14.0	8.9	5.3	8.2	13.9	12.1	11.7	16.5
Unemployed ( $n = 194$ )	5.4	7.5	13.4	9.8	5.3	8.4	12.4	13.0	10.0	18.2
Range	0-15	0-15	0-15	0-25	0-15	0-15	0-24	0-36	0-28	0-28
<i>F</i>	1.5	0.00	2.52	2.7	0.02	0.10	7.94**	1.82	8.89*	10.5**

Note CDS = Causal Dimensions Scale, LOC = Locus of Causality; STA = Stability; CON = Controllability; INT = Internal Locus of Control; EXT = External Locus of Control; ICP = Individual Control Perception; CCP = Collective Control Perception. At the first administration all subjects completed the CDS twice, once imagining unemployed (fail condition) and once imagining having found a job (success condition). In the table the mean ratings of those subjects are compared who experience actual (un)employment at the follow-up.

<sup>a</sup>  $df = (1, 272)$ , <sup>b</sup>  $df = (1, 316)$

\*  $p < .01$ . \*\*  $p < .001$ .

ployment; these measures related identically in both conditions.

#### Causal Attributions and Perceived Control Over (Un)employment

In Table 3 a retrospective comparison is made of the attributional pattern of those subjects who found a job and those who did not within 6 months after their final exam.

A multivariate analysis of variance (MANOVA) of the CDS subscales showed that there is no difference in the way prospective employed and unemployed attributed the causes of their imaginary (un)employment, shortly before their final exam. This held across the success and failure conditions,  $F(1, 272) = 1.93$ , *ns*, as well as across the attributional dimensions,  $F(2, 271) = 1.60$ , *ns*. The Condition  $\times$  Dimension interaction also lacked significance,  $F(2, 271) = .57$ , *ns*. Furthermore, the MANOVA indicated that a systematic difference existed in causal attribution of success and failure, which was independent of the future (un)employment status,  $F(2, 271) = 180.21$ ,  $p < .001$ . Causes for success were predominantly attributed as internal, stable, and controllable, whereas causes for failure were attributed typically as external, unstable, and uncontrollable.

A second MANOVA, including locus of control and perceived control over unemployment, revealed that the prospective employed and unemployed differ systematically,  $F(4, 313) = 4.88$ ,  $p < .001$ , on these dimensions. Subsequent univariate *F* tests showed that the prospective employed were more internally oriented and had a stronger individual control perception concerning unemployment than did the prospective unemployed. In addition, the latter perceived this control as being more collective than the former (see Table 3).

The two groups differed systematically in causal attribution of their real-life (un)employment situation. A MANOVA with the three CDS scores of the first administration as covariates showed a highly significant result,  $F(3, 260) = 10.3$ ,  $p < .001$ . Subsequent univariate *F* tests indicated that this difference is particularly due to the locus of causality and stability dimensions (see Table 4). The actually unemployed perceived the cause for their unemployment as being more external and unstable, whereas those who found a job perceived the cause for

their success typically as being internal and stable. So, compared with the first administration, the attribution of (un)employed remained basically the same, which can be seen from Figure 1.

The mean ratings of the attributional dimensions at the follow-up did not differ significantly from the initial mean ratings. This was true for attributions about employment as well as for attributions about unemployment. The only exception was the mean rating of the controllability dimension for employment, which decreased dramatically at the follow-up,  $t(182) = 14.00$ ,  $p < .001$ . The actually employed attributed their success in getting a job as less (externally) controllable, compared with 6 months before. With this exception it may be concluded that the outcome of the attributional process does not depend on whether it concerns an imaginary or a real-life situation. This exception, however, is an artifact caused by the modification of the CDS that resulted in a shifting of the interpretation of the controllability dimension toward external controllability. Table

Table 4  
Adjusted Mean Ratings for Attributional and Control Measures (Follow-Up  $N = 378$ )

Subjects	CDS according to the actual condition <sup>a</sup>			Locus of Control <sup>b</sup>		Perceived Control <sup>b</sup>	
	LOC	STA	CON	INT	EXT	ICP	CCP
Employed ( $n = 184$ )	5.6	7.5	8.9	13.5	11.5	11.6	16.8
Unemployed ( $n = 194$ )	9.0	6.0	8.7	13.7	12.0	10.3	17.3
<i>F</i>	25.23**	6.71*	0.13	0.99	0.01	19.97**	0.11

Note CDS = Causal Dimensions Scale; LOC = Locus of Causality; STA = Stability; CON = Controllability; INT = Internal Locus of Control; EXT = External Locus of Control; ICP = Individual Control Perception; CCP = Collective Control Perception. The adjusted mean ratings presented resulted from a covariance analysis, with the ratings on attributional and control measures of the first administration used as covariates.

<sup>a</sup>  $df = (1, 262)$  <sup>b</sup>  $df = (1, 303)$ .

\*  $p < .01$ . \*\*  $p < .001$ .

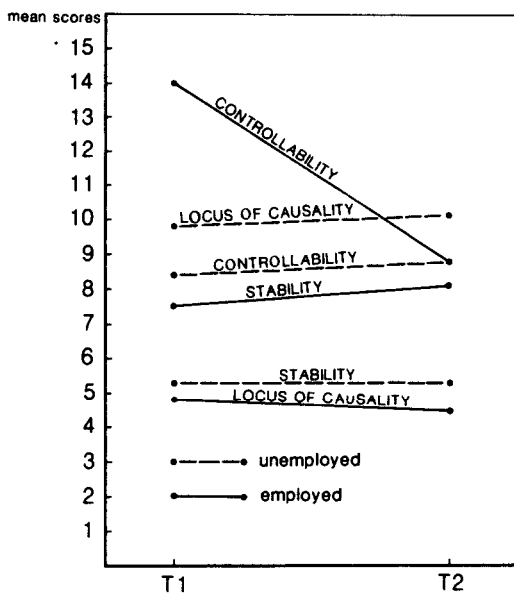


Figure 1 Causal attributions in an imaginary (T1) and a real-life (T2) situation

3 shows that subjects generally attributed success internally and failure externally. This tendency can also be observed at the follow-up (see Table 4). From this point of view it is comprehensible that the actually employed subjects attributed their success less (externally) controllable compared with their responses to the first administration. Moreover, controllability could initially be interpreted as internal by the subject, because of the ambiguity of most controllability items. This possibility, however, is ruled out at the follow-up because of the splitting of these items. Conversely, it can be hypothesized that subjects in the imaginary failure condition were more likely to interpret controllability as external than were those in the success condition. This view is supported by the difference in strength of correlations between the locus of causality and controllability subscales in both imaginary conditions.

In contrast to the relative stability over time of the attributional dimensions, ratings of locus of control and perceived control over unemployment did change. Although a covariance analysis showed that at the follow-up, there still existed an overall difference between the employed and the unemployed,  $F(4, 300) = 4.99, p < .001$ , this difference was completely accounted for by the individual control perception, as can be seen in Table 4.

It can be inferred from Figure 2 that the employed perceived stronger individual control over unemployment than the unemployed. As a matter of fact, this difference existed 6 months before, but it obviously increased over time. When confronted with actual unemployment, subjects perceived somewhat less individual control than before, although the difference was not significant,  $t(192) = 1.67, p = .09$ . The reverse was true for those who succeeded in getting a job; they perceived more individual control over the unemployment situation, which was for them still as hypothetical as before,  $t(179) = -1.96, p = .05$ .

The significant differences between the employed and the un-

employed on internal locus of control and collective control perception were not replicated at the follow-up. The unemployed, however, developed a more internal orientation during the 6 months after leaving school,  $t(192) = -2.68, p < .01$ . The collective control perception of the unemployed decreased somewhat, whereas the reverse could be observed for the employed. These tendencies did not reach significance, but as a combined result the initial discrepancy between the two groups disappeared. Finally, the employed developed a significantly less external orientation during this 6-month period,  $t(190) = 2.33, p < .05$ . This did not lead to a significant difference with the employed at the follow-up, because as a group the latter also developed in the same direction, but less dramatically.

### Discussion

#### The Internal Structure of the CDS

Compared with earlier evaluations, the results of this study concerning the internal structure of the instrument are less positive in some respects, especially with regard to the stability and controllability dimensions.

First of all, the internal consistency of these two subscales is, strictly speaking, insufficient, ranging from .52 to .71 in different conditions. Russell (1982), McAuley and Gross (1983), and Russell et al. (1987) reported alpha coefficients that were slightly higher, with one exception: In the latter two studies the reliability of the controllability subscale was about .50 and therefore insufficient. There was strict agreement, therefore, only on the sufficiency of the internal consistency of the locus of causality subscale. All subscales contained a limited number of items (i.e., three), which negatively influenced the internal consistency. A reason for the smaller internal consistency found in this study could be that in contrast to earlier studies a rating scale of only six points (instead of nine) has been used here. Therefore, increasing the number of items and adding more scale points would probably have increased the internal consistency of the subscales.

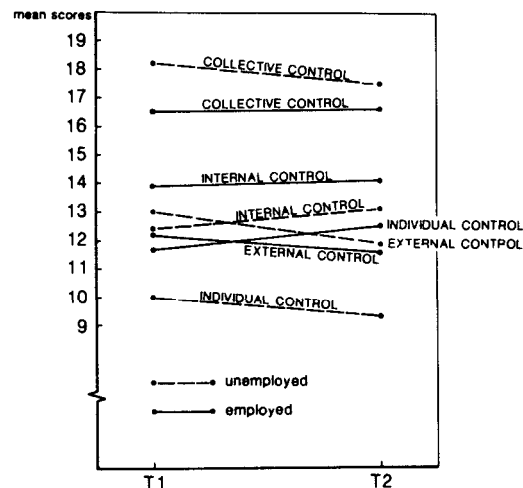


Figure 2 Perceived control measures in an imaginary (T1) and a real-life (T2) situation

Second, some correlations between CDS subscales are more substantial than in earlier reports (McAuley et al., 1983; Russell, 1982) indicating a certain dependency between the causal attribution dimensions. This is especially true for the locus of causality and the controllability subscales. An attempt was made here to minimize the correlation between the two subscales by splitting the ambiguous two-dimensional items of the Controllability subscale according to their locus. These newly created subscales did not correlate substantially, but on the other hand no improvement of the internal consistency could be observed.

The present study showed that both causal dimensions as operationalized by Russell (1982) are not independent, with an internal locus of causality being associated with controllability and an external locus being with uncontrollability. Recently, Russell et al. (1987) also raised questions concerning the discriminant validity of these two causal dimensions. At the same time, however, they suggested that the substantial correlation between the subscales may reflect the specific nature of the causal attributions in certain situations (in the present case, employment or unemployment).

A third indicator of the quality of the internal structure of the CDS is the amount of variance explained by each subscale (component). The Locus of Causality subscale turns out to be the strongest subscale, explaining one quarter to one third of the total variance, but the amount of variance explained by the other two components is also rather substantial. Unfortunately, comparable data from other studies are lacking.

From the foregoing discussion, it can be inferred that the CDS is of limited use in the context of a real-life situation. Should the partly disappointing psychometric properties be attributed to inadequacies in the instrument (i.e., test length, format, Dutch translation) or to the conceptualization of causal attributions? Test length and format have already been discussed, and it is very unlikely that the negative results are due to the Dutch translation because of the linguistic simplicity of the CDS compared with, for example, the Attributional Style Questionnaire (ASQ). It is noteworthy in this respect that two recent Dutch psychometric evaluations of the ASQ (Arntz, Gerlsma, & Albersnagel, 1985; Cohen, Van den Bout, Kramer, & Van Vliert, 1986) yielded the same (negative) results as an American study (Cutrona, Russell, & Jones, 1985), indicating the cross-cultural indifference of the research findings.

As a general result perhaps not only the concept of attributional style should be questioned but also the fundamental concept of causal dimensions itself. It can be hypothesized on the basis of our results that this is true to a certain degree, because "the dimensions are 'second-order' concepts . . . that is, they are concepts used by attribution theorists to organize the causal concepts of the layman" (Weiner, Russell, & Lerman, 1978, p. 62). It is likely that this organization becomes more difficult when the events to be causally attributed become more and more complex. Thus, probably the more the research moves away from laboratory tasks to complex real-life situations, the less adequately causal dimensions can be measured. This conclusion should be kept in mind when considering the remaining results, which will be discussed next. In fact, these results are tentative especially as far as the stability and controllability sub-

scales of the CDS are concerned, because of psychometric inadequacies.

### *Validity Aspects of the CDS*

The subscale structure of the CDS is invariant across success (employment) and failure (unemployment) conditions in imaginary as well as in real-life situations. The question of whether these dimensions are crucial or not (content validity) is beyond the purpose of this study. (See Kruglanski, 1980, for this theoretical issue.)

It has been shown here that causal attributions can be clearly distinguished from locus of control and perceived control over unemployment. This is consistent with Gurney (1981) who stated, when discussing the results of a study on causal attributions of unemployment in a sample of (un)employed school leavers, "It may be necessary to postulate that despite appearances, causal attributions and locus of control are largely independent of each other" (p. 89). On a more theoretical level, Gregory (1981) argued that locus of control expectancies do act on causal attributions as relatively independent factors, which, in their turn, are strongly influenced by the success or failure of the outcome. He stresses the conceptual difference between the *expectation* of locus of control and the causal *judgment* made by individuals when the outcome is known.

In contrast to the personal control component, the second-order attributional component is not invariant across success and failure conditions, indicating that the attributional pattern differs for both cases. Thus, the results of the present study do not support the notion of an attributional style across situations (see also Arntz et al., 1985; Cutrona et al., 1985; Cohen et al., 1986).

It can be concluded, therefore, that the CDS shows a considerable divergent validity when contrasted with other control measures that either exhibit a general (locus of control) or a specific (perceived control over unemployment) character.

### *Causal Attributions for (Un)employment*

Generally speaking, causal attributions for success (employment) are more internal, stable, and controllable, whereas attributions for failure (unemployment) are more external, unstable, and uncontrollable. These findings are consistent with those of Russell (1982) and McAuley and Gross (1983), who used the CDS in imaginary and real-life achievement situations, respectively. The differences between causal attributions for success and those for failure suggest that a process similar to hedonic (or self-serving attributional) bias is influencing the subjects' perceptions of causes (Bradley, 1978; Zuckerman, 1979). Likewise, in a review of research on attributional theory, Wortman (1976) suggests that when facing personal crisis, "people make attributions to protect their self-esteem and sense of personal worth. One would expect that, if anything, people faced with such outcomes would go to great lengths to avoid personal blame and feelings of guilt" (p. 45). Unfortunately, because of different operationalizations in earlier studies on the causal attribution of unemployment described before, results are difficult to compare. Nevertheless, the results of this study agree with earlier conclusions, at least as far as the most ade-

quately measured dimension (i.e., locus of causality) is concerned: The unemployed attribute their condition to external rather than to internal factors (Feather, 1985; Feather & Barber, 1983; Feather & Davenport, 1981; Feather & O'Brien, 1986; Gurney, 1981).

The results of the present study do not confirm Feather's (1983a) suggestion that students as observers are more likely to blame the unemployed for their condition than the unemployed themselves as actors do. Contrary to Feather, a longitudinal design was used here and it appeared that causal attributions of success (employment) and failure (unemployment) do not change under the influence of the actual (un)employment experience. It can be concluded, therefore, that the students in the present study judged the causes of (un)employment of themselves as actors rather than from other people as observers. In other words, they acted (attributed) as if they were already (un)employed. This marked discrepancy with Feather's study may be explained by sampling or by specific labor-market or cultural factors.

Feather used schoolchildren drawn from Year 9 and Year 10 classes (mean age of 14.3 years). The sample studied here consists of graduate students (mean age of 23 years) who completed the questionnaire at the end of their educational careers. For these students the condition of (un)employment was much more real than for the younger schoolchildren. Furthermore, according to Warr (1984), a higher local level of unemployment enhances external causal attributions of unemployment. It can be speculated that a relatively high national level of unemployment in The Netherlands, compared with other Western countries, makes external causal attributions for unemployment more likely. Under these specific labor-market circumstances a change in position from observer to actor may have no relevant effects on the predominantly external causal attributions for unemployment.

Finally, no sharp financial decline takes place when one becomes unemployed after graduation, as a result of the relatively high unemployment benefits in The Netherlands.

Taken together, these remarks underscore the relativity of the observer-actor distinction in the present study. This explanation for the nonreplication of Feather's findings is more plausible than inadequacies in the CDS, because these inadequacies were *not* found in the measurement of the locus of causality dimension, which is typically used in this kind of research.

### *Locus of Control and Control Perception*

The differences between employed and unemployed in locus of control and perceived control for unemployment are complex. At the follow-up the employed and the unemployed differed only with respect to individual control perception, with the unemployed perceiving less control than the employed. This is in agreement with Furnham (1982), who found that the employed, more than the unemployed, used individualistic explanations for unemployment rather than societal or collectivistic explanations. In fact, the discrepancy in the present study existed 6 months before, when all subjects were still students (see Figure 2).

Furthermore, it is remarkable that no significant differences in locus of control between the employed and the unemployed

were found, whereas many other authors have found such differences. Generally, employment is associated with an internal orientation, whereas unemployment is associated with an external orientation (Franz, 1980; Gurney, 1981; O'Brien & Kabanoff, 1979; Tiffany, Cowan, & Tiffany, 1970; Tiggemann & Winefield, 1984; Winefield & Tiggemann, 1985). Although the unemployed in this study are oriented more externally and less internally than the employed at the follow-up, these differences did not reach significance.

This lack of replication may be due to sampling factors: In all studies mentioned above less educated subjects were used. Findley and Cooper (1983) concluded from a literature review that internal locus of control and academic achievement are positively related. This could mean that the present highly educated sample would be rather homogeneous in this respect.

It is nevertheless striking that the employed and the unemployed already differed 6 months before in respect of their locus of control. An explanation for the initial differences that finds some empirical support here is that those who get a job within 6 months are more confident of this success and also attach more importance to a job than those who stay unemployed. As is known from the literature, an internal orientation is positively associated with a more optimistic view of influencing the outcome of an event by one's own behavior (Lefcourt, 1980) and with employment commitment (Andrisani & Nestel, 1976). At the first administration there was a significant difference between the groups in expected chance to get a job within 6 months,  $t(371) = -4.40, p < .001$ , as well as in the expected number of months staying unemployed,  $t(369) = 7.73, p < .001$ . The prospective employed were clearly more optimistic on both measures. Furthermore, prospective employed rated the importance of a job higher,  $t(364) = -3.14, p < .001$ , and being unemployed more negatively,  $t(372) = -3.27, p < .001$ , than the future unemployed. These observations are consistent with those of Winefield and Tiggemann (1985), who found that among school leavers the prospective unemployed showed considerable less *need achievement* than the prospective employed. They therefore considered a lower level of need achievement as a "predisposing factor" (p. 236) rather than as an effect of employment status. Thus, it may be concluded that a process like a self-serving motivational bias is at work. This bias systematically increases the chances of the graduates' finding jobs after graduation from the moment they leave school. Those who were more confident in getting a job, who were more strongly job oriented, who experienced internal rather than external control, and who perceived control over unemployment as more individual than collective were more likely to get a job within 6 months than those who were less confident and less job oriented and who experienced less internal control and perceived control over unemployment as collective rather than individual.

The results concerning the changes in locus of control scores between the first administration and the follow-up seem rather puzzling at first glance, but they do agree with findings from other longitudinal studies with young (un)employed. Gurney (1981), Franz (1980), and Tiggemann and Winefield (1984), and Winefield and Tiggemann (1985) found that both employed and unemployed tend to become oriented more internally and less externally. This general tendency is relatively independent from getting a job or not. There are some indications



in these studies that getting a job can facilitate this development in young people. In the present study a similar tendency can be observed, but only the employed changed significantly in the expected direction. At the same time, the unemployed showed a diminishing perception of both individual and collective control. It can be summarized, then, that the unemployed show, just like the employed, a general (if not significant) tendency to become gradually more internally oriented and less externally oriented. Their perceived control over unemployment slowly develops at the same time in a direction consistent with most unemployment research, with the unemployed perceiving gradually less control over their condition.

In conclusion, causal dimensions as measured by the CDS are invariant across different situations and can be distinguished from similar cognitions such as locus of control. Other results, however, are disappointing, mainly due to psychometric inadequacies of the CDS. Strictly speaking, only one principal causal dimension (i.e., locus of causality) could be assessed in a reliable and valid way. Perhaps the complexity of the social situation studied here (i.e., unemployment) causes only the most basic attributional dimension to emerge. In this case better and more specific operationalizations of both other causal dimensions are needed. Alternatively, the results from this study could also reflect some fundamental conceptual problems in causal attribution theory that become more visible when research moves from the laboratory to real-life situations.

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