

The Structure of the Emotional Self

Jörg Hupfeld

University of Berne, Switzerland

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Summary: Several studies discuss positive and negative affectivity as two dominant and relatively independent aspects of human emotionality (e.g., Watson, Clark, & Tellegen, 1988; Bryant, Yarnold, & Grimm, 1996). While this approach assumes the valence of emotions as a dominant individual difference characteristic we present a different idea. Our approach is based upon two basic ideas. First, we assume that the emotional appraisal of a situation depends on the personal goals, motives, values, or concerns that are affected by the situation. Therefore emotional experiences should be associated with central aspects of the individual self-construal. The second central point is the distinction between independent and interdependent aspects of the self. Many situations vary according to the extent to which they foster and reinforce or threaten an independent or an interdependent construal of the self. The general significance of independent and interdependent aspects of an individual self-construal should therefore influence a person's emotions.

Purpose of the paper is an integration of both approaches to human emotionality, taking into account the valence of emotions (positive and negative) as well as different aspects of the self (independent and interdependent). First empirical results indicate that the elements of the self-construal facet are clearly separated in a two-dimensional MDS representation. In order to separate the elements of the valence facet, higher-dimensional MDS representations must be chosen.

Introduction

Over the past few years, considerable interest can be found in the study of human emotionality (e.g., Gross & John, 1998; Larsen & Diener, 1987; Manstead, 1991; Martin, Berry, Dobrański, Horne, & Dodgson, 1996; Roger & Najarian, 1989). Within the present paper we want to focus our attention on emotional reactivity. Emotional reactivity shall be conceptualised as an individual predisposition to respond emotionally in various situations. Different people obviously experience different emotions in similar situations as well as they experience similar emotions in quite different situations. We will try to analyse some of the structural properties that are underlying co-occurrences in emotional reactions.

Emotions and Situations

Mental representations of emotions appear to have a temporally narrative structure. Thinking about emotions resembles thinking about script-like stories, including some ideas about the causes of the target emotion, about characteristics of the experience itself, and finally about consequences and symptoms of the emotional state (e.g., Shaver, Schwartz, Kirson, & O'Connor, 1987; Parkinson, 1995). Situational knowledge plays an important part not only in thinking about emotions but also in current emotional appraisals. Conway & Bekerian (1987), for example, were able to show that lexical decisions about emotion words as well as an emotion-naming task are facilitated when relevant situational information is primed. Although the exact mechanisms for such effects are unclear, empirical results indicate that there are many connections between representations of situations and representations of emotions. Several researchers agree that emotions in general can be regarded as particular mental states basing upon (possibly unconscious) appraisals of situations as personally significant (c.f., Frijda, 1986; Lazarus, 1991; Ortony, Clore, & Collins, 1988; Parkinson, 1995). Within the following sections we want to discuss some of the common features that are characterising the emotion-stories people experience. We try to analyse to what degree those features can be regarded as individual difference characteristics.

Positive and negative Emotions

There are various different theoretical and empirical approaches concerning the structure of human emotionality. Many of them differ with respect to the exact number of separable emotion concepts (e.g., Larsen & Diener, 1992; Plutchik & Conte, 1997; Russell, 1980; Watson, Clark, & Tellegen, 1988). However, to many models of human emotionality the general distinction between positive and negative emotions is central. Several empirical results indicate that positive and negative reactivity are two relatively independent and dominant aspects of human emotionality (e.g., Watson, Clark, & Tellegen, 1988; Bryant, Yarnold, & Grimm, 1996). Even though experiencing positive and negative emotions simultaneously is unlikely, considering a longer period in a person's life, the amount of positive and negative affect one experiences seems to be quite independent. The emergence of these two general aspects (dimensions in Factor Analyses, separable facet elements in MDS) indicates that an individual who for example reports frequent feelings of sadness also seems to be predisposed to the experience of anger, guilt, fear, and so on. Similarly, the general dimension of positive reactivity apparently reflects important co-occurrences among positive mood states. But taking into account the general importance of situational

cues we might ask, to what degree emotional reactivity is influenced by aspects of the situations as well.

Unfortunately, one of the most frequently used questionnaires, the Positive and Negative Affect Schedule (PANAS) developed by Watson, Clark, & Tellegen (1988), includes no information about the emotion-eliciting situations. The schedule comprises ten words that describe negative feelings or emotions (e.g., afraid, hostile, guilty) and ten words that describe positive feelings or emotions (e.g., enthusiastic, proud, interested). Respondents indicate on a 5-point scale to what extent they generally feel this way. We actually know only one instrument for the assessment of emotional reactivity that covers individual response tendencies with respect to different kinds of situations. This questionnaire was developed by Bryant, Yarnold, & Grimm (1996). Besides two other scales the questionnaire includes eight items reflecting positive emotional reactivity and six items reflecting negative reactivity. Items indicating positive reactivity are for example „if I complete a task I thought was impossible, I am ecstatic“ or „when I receive an award I become overjoyed“. Negative reactivity is assessed by items such as „I feel pretty bad when I tell a lie“ and „The sight of someone who is hurt badly affects me strongly“. For each item subjects assess the incidence of the described emotional feelings (see figure 1).

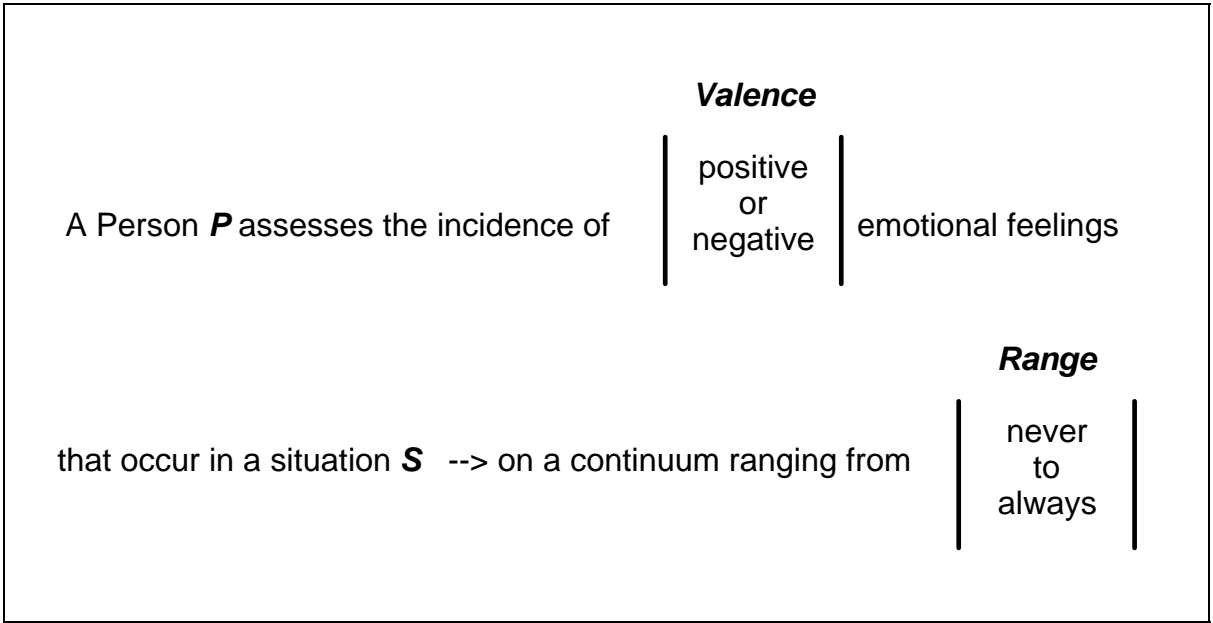


Figure 1. Mapping sentence of Positive and Negative Reactivity according to Bryant, Yarnold, & Grimm (1996)

Empirical results from different samples again support the idea of two relatively independent aspects of human emotional reactivity (Bryant et al., 1996). But interpretations should be made very cautiously because the items are poorly balanced. As we will discuss later, there seems to be a systematic covariation between emotional valence and other important aspects.

Self- and other-focused Emotions

In accordance with several authors we assume that emotions base upon (possibly unconscious) situational appraisals. The emotional experience depends on the specific personal goals, motives, values, or concerns that are affected by the situation. In other words, what is experienced as joyful or happy, or as sad or angering depends on the respective construal of the self.

Thus, if we want to improve our knowledge concerning emotional reactivity it might be useful to analyse the structure of the self. One of the most prominent scientific approaches to self-construals deals with independence and interdependence. Although independent and interdependent self-construals are often equated with individualism and collectivism there are various important differences between the individual and the cultural level (e.g., Kashima et al., 1995; Singelis, 1994). But we don't want to discuss those differences, we rather intend to confine ourselves to a description of some central features of self-construals at the individual level.

An *independent*, separate self-construal is defined as a bounded self that is separate from other persons. An independent self-construal includes an emphasis on personal abilities, beliefs and wishes, personal freedom, autonomy, personal mastery over life, being unique, expressing the unique self, and promoting one's own goals.

An *interdependent*, relational self-construal includes an emphasis on relationship and connectedness, harmonious interpersonal relationships, attentiveness to other's feelings and wishes, and empathetic concern. Relationships are viewed as integral parts of the person's very being and the boundaries between the self and others are open (e.g., Cross & Madson, 1997; Kashima et al., 1995; Markus & Kitayama, 1991, 1994; Lyons, 1983; Person, Reinhart, Strommen et al., 1998; Singelis, 1994).

Markus & Kitayama (1991, 1994) assume that emotions systematically vary according to the extent to which they follow from, and also foster and reinforce or threaten an independent or an interdependent self-construal. They argue that emotions, such as anger, frustration, and pride are related to an independent construal of the self. They call them *ego focused* emotions. On the other hand they mention so-called *other-focused* emotions, such as sorrow, guilt and positive feelings of love and belonging. All these emotions are seen as threatening, creating or fostering interdependence. Although this model seems to support some of the basic assumptions expounded in the

present paper, the approach of Markus & Kitayama has some shortcomings that will be discussed in the next section.

Self-construals, Appraisals, and Emotions

Markus & Kitayama do a good service while they stress the importance of self-construals within the domain of emotional experience. Nevertheless, their basic idea of emotions that are highly specific to independent and interdependent self-construals is questionable. The authors suggest that the distinction between ego-focused emotions (e.g., anger and pride) and other-focused emotions (e.g., guilt and shame) characterises interindividual differences in emotionality. In accordance with Markus & Kitayama we would agree that the distinction between interdependent and independent aspects of the self is an important one. But we assume that the central difference with respect to emotional experiences is more likely a matter of situation-type than of emotion-type.

Probably most emotional experiences can occur under the perspective of an independent self-construal as well as under the perspective of an interdependent self-construal. For example pride may be associated with a person's own outstanding performance. In this context pride is associated with an independent self-construal. However, feeling pride when a friend or colleague is doing an excellent job is also a plausible reaction if a person is willing to include others into the own self. Similarly angry feelings may result from an obstruction of one's own personal freedom. But anger might as well occur in the sight of another person who is treated badly. In this case anger might be a consequence of the inclusion of another person, the victim, into one's own self. The emotion might also be a sign of attentiveness to the victim as well as an open or covered signal of contempt with respect to the infringement of a harmonic relationship. And even being loved by another person can be a nice feeling because gaining this person's love is seen as an information about one's own abilities or being loved by this special person is a matter of status. But it might be a nice feeling because of the experience of belonging and closeness as well.

Many researchers who study the self consider a multidimensional self – many selves for many situations (e.g., Martin & Ruble, 1997; Vonk & Ashmore, 1993). The self-construals of most people cover aspects of both independence and interdependence. What aspect of the self dominates, depends – at least partially – on the situation. Nevertheless, there seem to exist interindividual differences as well (e.g., Singelis, 1994). Systematic co-occurrences of emotional feelings might tell us more about the relative importance of a person's independent and interdependent self-construals. If we want to describe phenomena of this kind we would suggest the concepts of independent and interdependent emotional reactivity.

Furthermore, unless we take into account the mediating role of the self, we might misinterpret the importance of positive and negative emotional reactivity. Let's take another look at the questionnaire developed by Bryant et al. (1996). If we try to classify the items according to the self-aspect that is associated with the situations that are described, we find that emotional valence and self-construals are confounded. Most of the situations that include negative emotional feelings are primarily relevant with respect to an interdependent self-construal. On the other hand, at least half of the positive items deal with aspects of personal mastery, control, or success. None of the positive items is unambiguously associated with an interdependent self-construal. So, the emergence of two distinct dimensions (or facet elements) can be interpreted in very different ways. The results might be interpreted as a proof of general negative and positive reaction tendencies or as a proof of global differences with regard to independent and interdependent self-construals.

In order to avoid such ambiguities, research on emotional reactivity should at least take into account the valence of the emotional feelings and the interplay between situations and self-construals. A corresponding mapping sentence is shown in figure 2.

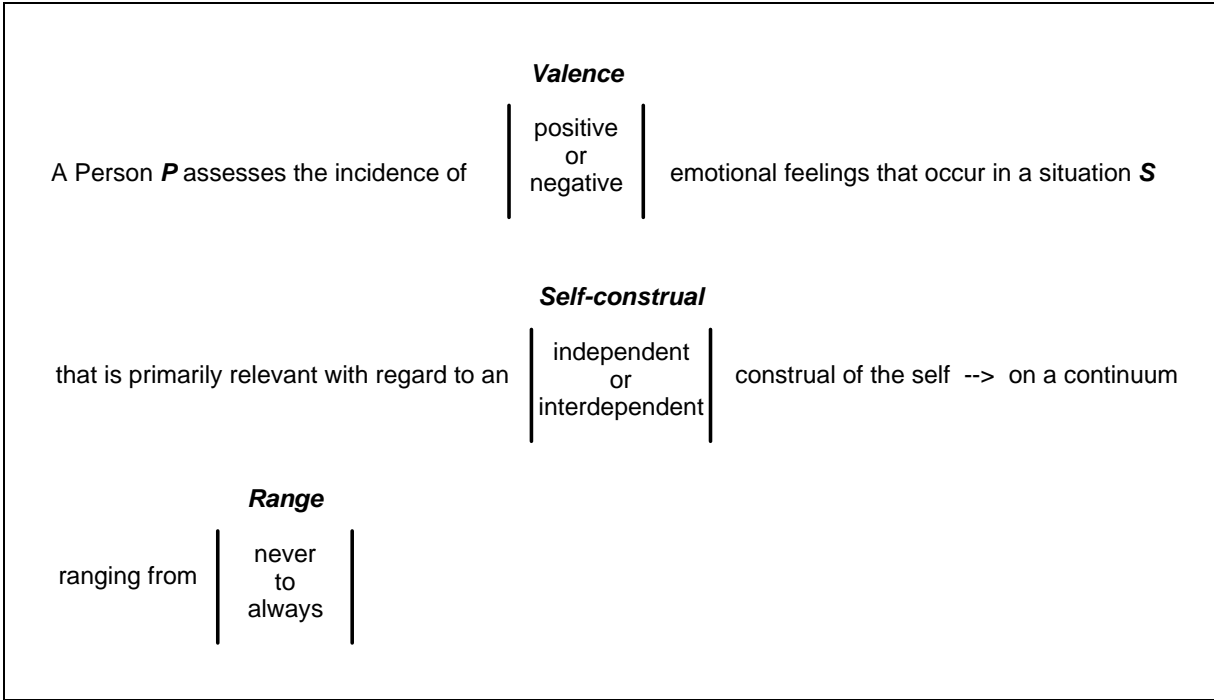


Figure 2. Mapping sentence of emotional reactivity under consideration of emotional valence and affected self-construal

Design and Pretest

On the basis of the above mentioned mapping sentence (figure 2), a battery of items was constructed. The construction was guided by the following general rules:

- Each item should contain a specific situation that is primarily relevant either with regard to an independent or an interdependent self-construal.
- The emotional reaction described in the situation must be either positive or negative.
- The specific emotional states (e.g., frustration, anger, pride, joy) mentioned in the context of the two self-construals should be balanced.

As Shye, Elizur & Hoffman (1994, p.77) pointed out, the need to specify explicitly content aspects in the form of facets generally suggest greater formality than is commonly practiced. For this reason we decided to carry out a pretest in order to get more information about the content validity of our items. We chose a comparative judgement task that was originally suggested by Anderson & Gerbing (1991) in connection with confirmatory factor analysis.¹ We gave the complete set of structuple definitions (the four combinations of emotional valence and affected self-construal) as well as the item list to 18 experts (psychologists and senior students of psychology). The respondents were then asked to read each item and assign it to the structuple that, in their judgement, the item best indicates. The assignments for each item, taken across pretest respondents, constituted the data for assessments of its content validity (c.f., Anderson & Gerbing, 1991). We adopted only those items that had been assessed to the intended structuple significantly more frequently than to all other structuples taken together (binomial test).

Table 1: Structuples of emotional reactivity (emotion-stories), total number of corresponding items, and item examples

Structuple	Example
positive emotion & connected, interdependent self-construal (6 items)	If a friend succeeds in managing an important task I feel pretty proud.
positive emotion & separate, independent self-construal (7 items)	When I succeed in doing a difficult job I feel very proud.
negative emotion & connected, interdependent self-construal (7 items)	Seeing that others are treated badly makes me feel angry.
negative emotion & separate, independent self-construal (7 items)	If someone is trying to restrict my personal freedom I become very angry.

¹ Although Anderson & Gerbing (1991) use the term “content validity“ with reference to a set of items and prefer the term “substantive validity“ with regard to single items, we use the well known former term.

Data and Results

In the next step a heterogeneous sample of 187 respondents (75 males and 112 females; average of age = 32 years, minimum = 16 years, maximum = 76 years) filled-out the questionnaire. Respondents had to assess the incidence of emotional feelings as described in the respective items using a 6-point Likert-type scale (1= never, 2= almost never, 3= occasionally, 4= usually, 5= almost always, 6= always). A correlation matrix (pearson correlations) of the items was built up and analysed by means of Facetted Smallest Space Analysis.

Within a two-dimensional solution (coefficient of alienation = .25) the two different aspects of the self (independent vs. interdependent self-construal) can be perfectly separated (see solid line in figure 3). However, a partitioning according to the elements of the value-facet (positive vs. negative emotion) is not possible.

Within a three-dimensional solution (coefficient of alienation = .17) the items covering different aspects of the self again can be separated perfectly both within a plane that is constituted by dimensions 1 and 2 and within a plane that is constituted by dimensions 1 and 3. But within this three-dimensional solution a separation of the items according to the valence-facet is also possible (see solid line in figure 4). Within a plane that is constituted by dimensions 2 and 3 positive and negative emotions can be separated with only one exception (see circle in figure 4). Altogether the three-dimensional solution can be characterised as a kind of simply structured cube (see figure 5).

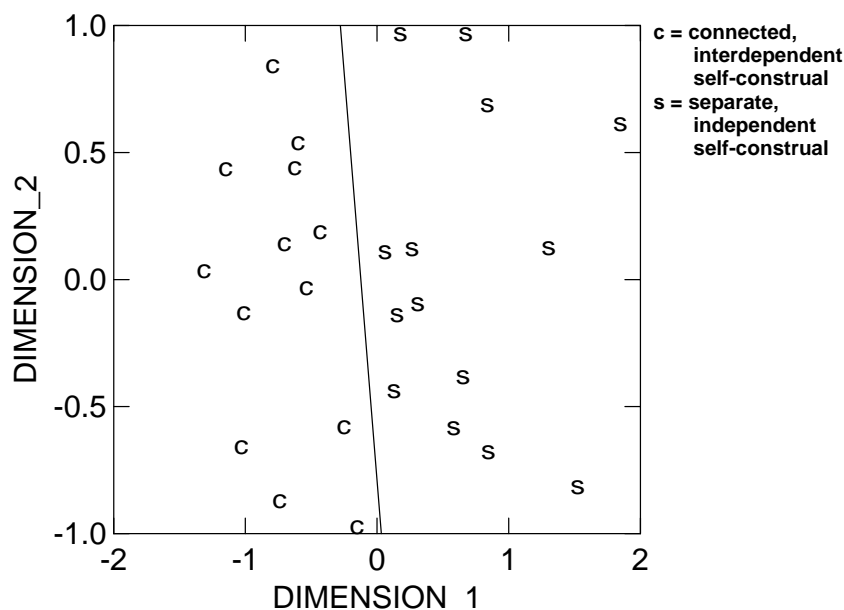
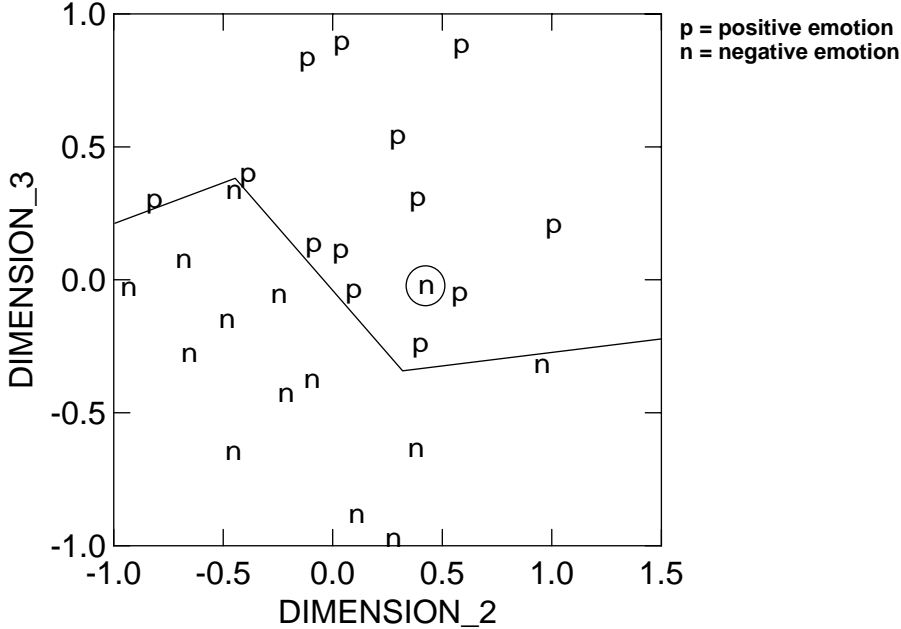


Figure 3. Two-dimensional MDS representation of 27 emotional reactivity items,



coded by self-construal

Figure 4. Dimensions 2 and 3 of a three-dimensional MDS representation of 27 emotional reactivity items, coded by valence

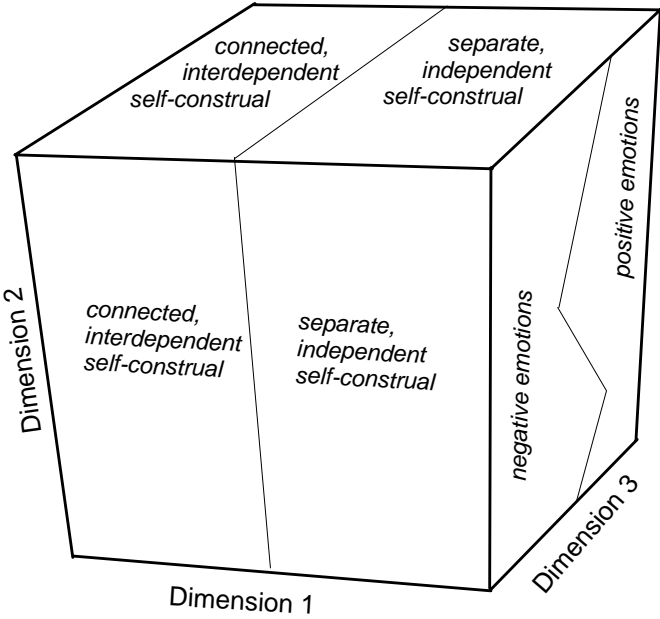


Figure 5. Cube model of emotional reactivity

Table 2 shows the correlations among the different emotional reactivity aspects (average scores). All correlations are positive, indicating a general emotional reactivity trait.

Table 2: Pearson correlations for averaged emotional reactivity scores

	positive emotions / independent self	negative emotions / independent self	positive emotions / interdependent self
negative emotions / independent self	0.49**		
positive emotions / interdependent self	0.50**	0.20**	
negative emotions / interdependent self	0.36**	0.20**	0.62**

** $p < .01$

Discussion

The results generally support the idea of the self as a central aspect of human emotionality. Covariations in emotional reactions are basically structured according to the aspects of the self (interdependent vs. independent self-construal) that are affected by the situations. The question whether the emotional reactions are positive or negative seems to be less important. However, systematic covariation with respect to the emotional valence can be detected as well.

If we interpret the results in terms of personality traits, several interesting conclusion can be drawn. The results can be seen as a proof of global interindividual differences with regard to emotional aspects of independent and interdependent self-construals. An individual who for example reports frequent feelings of anger when others are treated badly, seems to be generally predisposed to the experience of very different negative as well as positive mood states (e.g., pride, joy, frustration) in other situations where aspects of an interdependent self-construal are affected. Similarly a person with a pronounced independent self seems to be predisposed to the experience of positive as well as negative emotions in all situations that are significant with respect to his or her personal freedom, uniqueness, abilities, or autonomy. However, within each of the two domains of personally significant situations there seem to exist positive and negative reaction tendencies as well. The intercorrelations of the different emotionality components indicate that the trans-situational tendency to react with positive emotions might be more pronounced than the trans-situational negative reaction tendency.

In general the empirical results are encouraging. However, further and more detailed theoretical and empirical research is needed. Especially the concepts of interdependent and independent self-construals are too broad and fuzzy. Probably it would be

appropriate to regard both constructs as multidimensional. Within each self-domain several different aspects might be distinguished (e.g., Pearson et al, 1998). One possible common dimension that has been discussed in the context of cultural differences refers to the question whether self-construals are organised horizontally or vertically (c.f., Triandis & Gelfand, 1998). Whether it is possible to transfer this idea to the individual level is an open question. With regard to an independent self-construal the distinction might focus on the question whether autonomy, personal freedom and personal control of one's own life are the central aspects or competition and status. Within interdependent self-construals the question might be associated with the special kind of relationship a person prefers or is striving for. If you are willing to include other persons into your own self and focus on interpersonal relationships it makes a difference whether the relationships are seen as egalitarian or as hierarchical. Future research will have to show whether this distinction is a useful one.

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Author's address:

Dr. Jörg Hupfeld
Department of Psychology
University of Berne
Unitobler, Muesmattstr. 45
Switzerland
email: jhupfeld@psy.unibe.ch