

Self-Construal and Self-Control

Ramona Schürmann¹, Hellmuth Metz-Göckel² (2014)

One central hypothesis of self psychology assumes that people differ from each other with regard to their self-construal (see Hannover & Kühnen, 2002). The independent self-construal (independents) is characterized by a defined, autonomous self who is different from others and unique. The interdependent self-construal (interdependents) is characterized by emphasizing the relation of the individual with other persons and the social environment. Only in connection with environment, social relations, roles and the arising commitments, the self can be defined.

Self-construal research strongly benefited from the interconnections with cognitive psychology (see Hannover, 1997). However, the role of motivational and volitional processes has hardly been considered yet. Motivation-psychological aspects in self-research have in fact dealt with self-esteem tendencies but not with the question, whether interdependent and independent subjects differ with regard to motivational and volitional processes during actions in the objective and social environment. Approaches to connect self-psychology and motivation psychology were first discussed on a theoretical basis (Metz-Göckel, 2001). An empirical examination followed and the results suggested a relation between both subject areas (Olvermann³, Metz-Göckel, Hannover & Pöhlmann, 2004).

Three studies revealed coherences between independent vs. interdependent self-construal and motivational and volitional parameters. At first connections appeared on the content-level between motives and self-construal which have to be interpreted in the sense of the semantic mechanism of the semantic-procedural model of the self (SPI) of Hannover & Kühnen (2002): the interdependent orientation showed connections to the affiliation motive, interdependent to the achievement and power motive. In case of interdependent subjects the values for the fear components were also higher.

Apart from that, there was evidence that persons differ, subject to self-construal (procedural mechanism of the SPI-model), with regard to the volitional processes which are concerned in realizing intentions. According to Kuhl (1998) action- and state-orientation have proven to be important variables. Action-orientation is reflected in the quick transformation of intentions into actions whereas state-orientation is characterized by inhibition and hesitancy. In the study of Olvermann et al. (2004) the interdependent subjects proved to be more state-oriented than the independent ones. Latter rather tended to action-orientation. Regression-analytical calculations revealed a significant correlation between interdependent self-construal and failure-related state-orientation ($r = .31$, $p = .001$), whereas an independent self-construal tendentially showed connections with action-orientation in case of action-planning ($r = .19$, $p = .10$).

According to central assumptions of the PSI-theory of Kuhl (2001), state-orientation is associated with volitional interferences. In this connection the findings of Kuhl & Kazen (1994) are especially revealing, according to which state-oriented persons have difficulties to differentiate between self-chosen and external goals. The PSI-theory explains these findings with the fact that state-oriented persons have aggravated access to their own needs and goals which are anchored in the implicit self-system.

¹ Deutsches Zentrum für Hochschul-und Wissenschaftsforschung, Hannover

² Technische Universität Dortmund

³ change of name, now Schürmann

These results and assumptions have been the impulse for the above mentioned examination. Here the general insight is that interdependent subjects have a stronger orientation toward expectations and maybe norms of the social environment, rather neglect their own needs, or possibly are hesitant and afraid to make mistakes. They presumably deal intensively with the `situation´ and potential failures. Independent persons on the other hand feel to be unique, sparsely influenced by the social environment and autonomous in their actions. And according to Olvermann et al. (2004) they are also in fewer extent failure-motivated than interdependent persons.

The knowledge about differences regarding self-construal originated from culture-comparing research. Let us look at some results which might relate to self-control. According to Kitayama, Markus, Matusmoto & Norasakkunkit (1997), the increase of self-esteem and internal stable attributions are prevailing in individualistic cultures (here: USA), whereas self-information and self-criticism prevail in collective cultures, and these information are used to strengthen the affiliation to a social group. During a culture-comparing study (31 countries) Diener & Diener (1995) found out that the relation between self-esteem and life satisfaction is the closest the more individualistic the general orientation in a country is. Among the members of western cultures self-determination and individual fulfillment represent high values. In an examination of Oysermann, Sakamoto & Lauffer (1998) group affiliation is clearly expressed. It is shown that `social commitments´ prevail in case of persons from collective-oriented cultures, meaning that they rather work for the benefit of the ingroup than not for themselves. In contrast to that, people from individualistic-oriented cultures are more interested in their own happiness.

But recent research assumes that there are also differences regarding self-construal among members of *one* culture which can be recorded with certain survey instruments. It has also become apparent that different self-construals can currently even be induced in persons of one culture by priming-procedures. In one of the first examinations of this kind, dealing with the Fishbein-Ajzen-model, Ybarra & Trafimow (1998) found out that pre-activating the collective self causes the norm components to prevail and pre-activating the private self causes the attitude components to prevail in creating an intention. Although the authors did not come to this conclusion, there seemed to be a bigger orientation toward the norms of a group when the collective self was primed.

These seemed to be good reasons to expect different self-control processes.

To describe and record such processes we orient ourselves toward the PSI-theory (Personality System Interaction) of Kuhl (2001) based on which self-control modes have been differentiated.

In case of *self-regulation*, self-compatible goals are supported by positive emotions. Intentions and aspirations which are supported by positive emotions are observed in interaction with task and environment conditions. There are bottom-up as well as top-down process strategies.

Self-control, on the other hand, is the deliberate use of control to reach goals with impulses being suppressed and a close top-down process occurs. We would be talking of self-controlled actions when a person thinks that he or she should conduct or continue an action due to external stimuli or his own decisions without being motivated. According to Kuhl (1995) we are dealing here with a kind of intern

dictatorship which is based on the suppression of potential uncooperative processes like feelings, preferences and other self-aspects.

In case of self-regulation, implicit unconscious processes fed by the extension-brain are working and all relevant psychological functions are used and come into their own. Therefore, Kuhl talks about internal democracy.

When building a connection to self-construal, a series of findings can be interpreted in such a way, that in case of interdependency the orientation toward others or the group and strong tendencies to fulfill the expectations of others are prevailing. That could rather lead to heteronomy ending in self-control, and makes self-regulation which, in the sense of the PSI-theory, is based on needs, convictions, and attitudes, rather unlikely.

We expect that interdependency is associated with self-control, as interdependent subjects rather concentrate their actions on the persons in their social surrounding. Interdependency could correlate with self-regulation, for independent subjects decide autonomously following their own needs.

Besides self-regulation and self-control, Kuhl & Kazen (2001) make out further dimensions of self-control (see Kuhl & Hartmann, 2004):

Volition inhibition is marked by a weakened relation between intention memory and achievement system. Here the basic assumption is that a goal or intention has to be stored as long as the chance for putting it into action has come. Otherwise rash impulse actions could occur. In case of a hyperfunction of the achievement inhibition it can be difficult to stop the process of pondering and proceed to action. Experimental examinations proof that own intentions are difficult to realize, whereas instructions from others are followed more and more and direct external stimuli cause stronger reactions.

In case of *self inhibition* which is mostly characterized by state-orientation, the ability to set goals based on ones own needs and interests, the implicit self, is impaired. There is a lot of evidence for self inhibition being identified by never-ending pondering. According to Kuhl and others (Kuhl & Hartmann, 2004), the reason is that thoughts and emotions, etc. which are inappropriate – in this sense “involuntary” – cannot be identified and are therefore not prevented.

Interdependent subjects could also have a stronger volition inhibition than independent ones. Even when there are intentions, it could be that interdependent subjects rather comply with influences from the social environment or its expectations than pursue their own goals.

For similar reasons self inhibition can lead to differences between interdependent and independent subjects, as they are less likely to make plans based on their own motives or tend to ponder and hesitate with an eye toward the own social environment. This assumption is also supported by the own results regarding the connection between state-orientation (after failure) and interdependent self-construal (Olvermann et al., 2004).

To be able to answer this question we deal below with the issue whether there are differences between interdependent and independent subjects with regard to self-control indicators. Later we deal with the question whether these differences are associated with further factors which possibly provide an indication regarding the underlying processes.

Prediction: Differences between Interdependents vs. Independents

In the following we look for differences between persons with interdependent and independent self-construal.

Current insights into the differences between interdependent and independent subjects give reason for some expectations.

Self-control, volition inhibition and self-inhibition should be more distinct in interdependent subjects and self-regulation in independent subjects.

With regard to the scales or subscales, substantiated differences can be postulated more easily. Self-congruence means that persons act vs. not act strongly in accordance with their needs. Heteronomy expresses the extent to which people think that they are able to influence others. Conformity stands for the extent to which the expectations of others are fulfilled vs. not fulfilled. Self-discipline shows to which extent actions are deliberately controlled when they do not implicitly correspond with ones own needs. Intrusion tendency expresses the extent to which thoughts are forced on a person which have nothing to do with the current actions or situation, respectively.

In the present paper, we suggest differences in the constructs heteronomy, conformity and self-discipline between independent and interdependent self-construals. In particular, an interdependent construal considers self-contents which confirm the person's interconnectedness with others and they have a stronger orientation toward their social context and its expectations and requirements.

In contrast, an independent construal is accompanied by autonomous self-contents and encourages being the same irrespective of the social context. Self-congruency should be stronger in independent construal than in interdependent construal.

Pondering and intrusion tendency should be stronger in case of interdependency than in case of independency. This is to be expected as Olvermann et al. (2004) have shown that interdependent subjects tend to state-orientation (after failure). This form of state-orientation is reflected in pondering and paralysis after failures. And that is why the interdependent subjects are expected to get higher values.

To examine the differences between both self-construals, an evaluation strategy has been chosen, which is going to make these subgroups contrast with each other. The discriminant analysis was chosen over a multivariate analysis of variance because it allows for information about the different weightings of the variables in a closed evaluation approach.

Study 1

Method

In the following two studies are presented. The second one is a replication study which has been extended by several variables. For lack of space, the results of study 1 and study 2 are summarized as far as identical variables are involved. The answers to the additional questions are dealt with separately.

Participants

Two hundred and ninety-four students (92 male, 179 female, 23 with undisclosed gender) from different departments at the TU Dortmund University (Germany) volunteered for the study. The mean age of the sample was $M=24,3$ years ($SD=6,52$). They either got credit for their time as a subject or some small candy.

Procedure

Participants completed the SSI (Kuhl & Kazen, 2001) and the self-construal-scale (Schürmann, 2007) successively or with 3 hours in between (study 2), respectively. Besides the constructs of SSI e.g. self-regulation, self-control, intention and self-inhibition, the general stress load was also covered. But it is not as important as a self-control modus, more like a determinant. This variable is covered as we are dealing here with a closed inventory. The following can be said about the structure of the questionnaire: the self-control dimensions are composed of rather different scales which are also composed of subscales. These subscales only consist of two items. This structure is indicated in table 1.

about here: table 1 (appendix)

Here the internal consistencies of the dimensions, scales and subscales are stated (own study). With two exceptions the internal consistency of the subscales consisting of only two items are satisfactory. Under certain circumstances the contentual heterogeneity of the instrument can lead to the scales and subscales to be adequately incorporated into the hypothesis validation. This detailed analysis will be taken as an additional basis for the evaluation. The internal consistencies for the global dimensions of the SSI are:

self-regulation: $\alpha = .862$

self-control: $\alpha = .740$

intention inhibition: $\alpha = .880$

self inhibition: $\alpha = .833$

general stress load: $\alpha = .915$

To measure the self-construal was used a modified variant of the Singelis-scale (self-construal-scale from Schürmann, 2007).

In studies 1 and 2 the resulting scores were used to divide the sample in independents and interdependents (10 items each). The following computation rule was used in previous studies (see Olvermann et al., 2004, see also Hannover, 2002). The sample was divided into these two groups by z-standardizing each of the two subscales and by computing the difference between the interdependent subscale and the independent subscale for every single participant. The higher the resulting self-construal-score of the participants is the more accessible is the independent self-knowledge. The difference scores had a mean of $M=???$ ($SD=??$) and a median of $Med=??$ ($SD=??$). Is the difference score larger than Med (zahl) participants were classified as independents, otherwise participants were classified as interdependents.

The internal consistencies amounted to $\alpha = .720$ for the interdependent subscale and $\alpha = .702$ for the independent subscale.

Model items for the interdependent subscale:

I can easily empathize with thoughts and feelings of others.

I am prepared to get socially involved.

For me it is important to bond with the people in my daily environment.

Model items for the independent subscale:

It is always very important for me to take care of myself.

I like to be free to make decisions.

I am prepared to pursue my dreams even when other people laugh about me.

Both subscales correlate significantly with each other: $r = .256$ ($df=269$, $p=.000$)

For the following evaluation (interpretation) this measure was trichotomized and the upper and lower third was compared with each other by means of a discriminant analysis⁴.

Results

Dimensions of the Self-Control-Inventory

At first the discrimination between the forms of self-construal was examined for the global dimensions of SSI. In this evaluation the “general stress load” was included as it is part of the inventory. These and further results are summarized in table 2. Here the variables, their discriminant structure weight, average value, spread and the results of the equality test are displayed. With a value of $\Lambda = .870$ ($p = .000$) Wilks-

Variables	Diskrimi nance Function	Interde pendent N = 86 M	s	Inde pendent N = 85 M	s	F Equality df = 1/169	p
SSI-Dimensions							
Self -Regulation (SR)	.849	2.37	.43	2.67	.49	18.14	.000
Self-Inhibition (SH)	-.607	2.34	.59	2.06	.61	9.270	.003
Self-Control (SK)	-.293	2.69	.46	2.57	.55	2.163	.143
Volitional Inhibition (VH)	-.174	2.36	.55	2.28	.62	.761	.384
Strain Load	-.055	2.12	.76	2.09	.76	.077	.782
SSI-Scales							
Self-Determination (SR)	.736	2.77	.50	3.07	.48	16.07	.000
Activation-Control (SR)	.728	2.12	.57	2.30	.65	15.76	.000
State-Orientation after Failure (SH)	-.696	2.56	.68	2.15	.71	14.39	.000
Self-Motivation (SR)	.527	2.21	.50	2.44	.53	8.26	.005
Affective Self-Control (SR)	-.322	2.51	.56	2.34	.66	3.07	.081
SSI-Subscales							
Self-Congruence (SR)	.486	2.76	.60	3.09	.50	15.09	.000
Pondering (SH)	-.482	2.63	.74	2.19	.75	14.84	.000
Self-Activation (SR)	.438	2.24	.66	2.62	.75	12.26	.001
Self-Soothing (SR)	.438	1.97	.64	2.35	.78	12.24	.001
Introjection Tendency - Conformity (SH)	-.414	2.24	.68	1.88	.75	10.91	.001
Paralysis after Failure (SH)	-.397	2.48	.75	2.11	.78	10.04	.002
Emotion-Control (SR)	.345	2.06	.63	2.34	.69	7.61	.006

⁴ Due to the incomplete data records, the following results are to some extent based on a slightly smaller number of cases.

Optimism (SR)	.337	2.77	.65	3.04	.68	7.22	.008
AnxiousSelf-Motivation (SK)	-.320	2.28	.79	1.95	.91	6.51	.012

Tab. 2: Results of the discriminance analysis for the SSI-dimensions, subscales and scales comparing upper and lower third of the self-construal scale.

Lambda points out a multivariate diversity for self-control dimensions. However, the first – and only – canonical discriminant function has an eigenvalue of just $\lambda = .150$. The canonical correlation is $r = .361$.

Self-regulation and self-inhibition add significantly to the separation of the groups. Self-regulation is more distinct in independent subjects, self-inhibition, on the other hand, in interdependent ones.

This partially confirms our first assumption. The expectation of significant discrimination functions of self-control and volitional inhibition was not confirmed.

Consideration of the Subscales

The discriminant analysis was calculated for these two groups and all scales and subscales of SSI as the differences with regard to the dimensions could be blurred by the reverse effects of the scales or subscales. With a value of $\Lambda = .851$ ($p = .003$) or $\Lambda = .726$ ($p = .000$) Wilks-Lambda points to multivariate differences with regard to the scales or subscales. The first – and only – canonical discriminant function has an eigenvalue of $\lambda = .176$ or $\lambda = .377$. The canonical correlation is $r = .387$ or $r = .523$. This shows that including the subscales leads to a better separation of the groups.

Regarding the results, taking account of the SSI-scales, self-determination, activation control and self-motivation, show significantly increased values for independent subjects. State-orientation (after failure) and affective self-control, on the other hand, show significantly increased values for interdependent subjects.

The results of the analysis, taking account of the SSI-subscales, are more enlightening. As the auguries of discriminant function-values and differences in means account for, self-congruency, self-soothing, self-motivation, emotion control and optimism are much stronger for independent subjects. These variables can be assigned to the dimension self-regulation. In contrast to that, pondering, introjection tendency, conformity, paralysis after failure show higher values for interdependent subjects.

Now the result pattern is a little bit clearer: on the subscales of self-regulation independent subjects have higher values than interdependent subjects. Interdependent subjects, on the other hand, have higher values on three scales of self-inhibition and one of volition inhibition. This confirms the working hypothesis which has been phrased only in parts at the beginning. Self-inhibition and conformity characterizes interdependent subjects, whereas independent subjects have higher values on the scales for self-regulation like self-activation, self-congruency and optimism.

Discussion

When summarizing the facts, it is shown that self-regulation and self-inhibition have different characteristics subject to the self-construal. Self-regulation seems to distinguish independent subjects. That can be put down especially to self-determination, activation control and self-motivation. These findings as well as the

results of the discriminant analysis show, that interdependent subjects have fewer characteristics with regard to these variables. Independent subjects have self-control competencies which encourage autonomous and self-determined actions. And these competences are minor characteristics with regard to interdependent subjects. The data do not imply that they are missing.

With regard to self-inhibition differences were also revealed. These are especially to be put down to pondering tendency, paralysis after failure and introjection-conformity. For these variables the values are higher for interdependent subjects. The question emerges about the underlying mechanisms. Introjection tendencies can be due to the stronger orientation toward the social environment. From there they adopt expectations and goals. But this cannot be the only explanation for pondering tendency and paralysis after failure. For this purpose results from research concerning state-orientation can be used. According to Kuhl (2001) state-orientation after failure and thus pondering tendency and paralysis after failure can be put down to negative affectivity. Examination 2 is to reveal further information about these and other backgrounds of the current findings.

Study 2

The prior purpose of study 2 was to consider further factors. Self-inhibition, expressed by state-orientation after failure can be put down to 'perseverate' (not manageable) negative affects which impede the access to the implicit self and thus prevent the pondering to be ended. That is why it is to be examined whether interdependent subjects indicate stronger negative affect conditions than independent subjects.

Furthermore, it is to be examined if the stronger paralysis after failure of interdependent subjects can be put down to fear of failure (see Olvermann et al., 2004). The stronger self-motivation and self-soothing of independent subjects could correlate with a low failure-orientation.

Apart from that, it should be examined whether the extent of the orientation toward the social environment in general and its influence on the actions has different characteristics. The differentiation was made because self-inhibition affects the own goals and motives more than volition inhibition and are therefore rather be affected by the dependence with regard to action.

The first question was, if it can be empirically proven that persons with different self-construals also differentiate with regard to a series of other in part motivational and emotional features, namely failure-orientation in performance situations, the orientation toward persons from the social environment in general and with regard to their actions and the rather outlasting negative and positive affinity. It is expected that negative affectivity is more distinct for interdependent subjects. In view of the positive affinity it is supposed to be stronger for independent subjects. (It will also be examined to what extent this variable influences the relation between self-construal and self-control.)

Method

Participants

One-hundred twenty students (61 male, 100 female and 22 of undisclosed gender) from different departments at the TU Dortmund university participated for the study. They either got credit for their time as a subject or some little candy.

Procedure

The subjects were asked to take part during compact seminars of the author. At first they completed the self-construal-scale (Schürmann, 2007) and the self-control inventory (Kuhl, 2001). After three hours, filled with seminar activities and lunch break, the participants completed the other questionnaires.

Measures

As in Study 1, we divided the participants into independents and interdependents by z-standardizing each of the two self-construal-subcales. The resulting distribution of difference scores had a mean of $M=???$ ($SD=??$) and a median of $Med=??$ ($SD=??$). The internal consistencies of the self-construal-scale and the SSI in this sample were nearly identical with the results of the first sample. With regard to the self-construal-scale there were slight modifications of the Alpha-value:

Independent self-construal: $\alpha = .704$

Interdependent self-construal: $\alpha = .696$

The failure-orientation was recorded with a series of items from the achievement-motivation-scale (Götttert & Kuhl, 1980; high loading items for success- and failure-orientation from an earlier examination were used).

The achievement-motivation-scale is bipolar; high values stand for **failure-orientation** (8 items; $\alpha = .831$).

Example: *It upsets me to do something when I am not sure that I can do it.*

I like to try something new and unfamiliar, even when it goes awry (-).

Orientation toward others or experienced **dependency in general** were recorded by seven items ($\alpha = .644$).

I am very anxious to please people who are important to me.

Certain persons strongly influenced my development.

Experienced **dependencies with regard to actions** should show how far the orientation toward the social environment goes vs. the feeling of being relatively independent. This variable was recorded by six items ($\alpha = .633$). Example:

I strive for good grades in my study because it earns me acknowledgement from my friends.

My life is determined by my own behavior. (-)

Above the assumption was made that interdependent and independent subjects also differ with regard to outlasting affinity, whereby interdependent subjects possibly rather tend to negative affinity. The item composition is meant to show negative as well as positive affinity, like in the sense of motivation, energy etc. The composition is oriented toward Thayer and others. We used the questionnaire (in Anlehnung) from Scollon, Diener, Oishi & Biswas-Diener (2004), with reference to Robinson & Clore (2002). In the following the participants completed any items about the answerer's mood during the last month.

After factor- and consistence-analysis, the 14 items could be recorded in two subscales, namely negative and positive affinity:

Negative affectivity ($\alpha = .836$) was recorded by the following items: *nervous, exited, calm (-), relaxed (-), helpless, depressed, listless, sad.*

Positive affectivity ($\alpha = .831$) was recorded by the items *cheerful, joyful, zestful, happy, energetic.*

It was assumed that interdependent subjects have a stronger orientation toward failure and their social environment in the sense of experienced dependency in

general and in view of their actions. Apart from that, the expectation was that an interdependent subject would rather report negative and an independent subject rather positive affinity lasting over a longer period in the past.

For this study the overall score for the self-construal-scale (Schürmann, 2004) was produced by calculating the differences (independency minus interdependency) and trichotomizing it, and the upper third (n = 43) discriminant-analytical contrasted with the lower third (n = 40).

Intrinsic value ($\lambda = .156$) and canonical correlation ($r = .368$) turned out to be relatively low; Wilks Lambda ($\Lambda = .865$, $p = .039$) is significant.

Results Part One

Significant differences showed between the groups (see table 3) with regard to experienced dependency in actions vs. self-determination, the experienced dependency in terms of general orientation toward others, the failure-orientation and the negative affectivity experienced in the last month. The difference regarding the positive affectivity is insignificant. The direction of the differences is always as expected.

<i>Variables</i>	Diskriminanz Funktion	Interde pendent M N = 42	Inter de pend ent s	Inde pendent M N = 43	Inde pend ent s	F Equality	p
Orientation toward Others	.798	2.68	.39	2.44	.41	8.25	.005
Experienced Dependency regarding actions vs. Self-Determination	.775	1.96	.46	1.71	.36	7.78	.007
Failure-Orientation regarding efficiency actions	.581	2.41	.42	2.22	.45	4.38	.039
Negative Affectivity in the last month	.559	2.36	.61	2.10	.53	4.05	.048
Positive Affectivity in the last month	-.236	2.72	.57	2.78	.59	.722	.398

Tab. 3: Results of the discriminance analysis for the additional variables comparing the upper with the lower third off the self-construal scale.

For further clarification of the processes it was examined if and which of the additional variables shows relations with the SSI-variables.

To answer this question, regressions were calculated. Here the respective dimensions or scales are entered as control variables in advance and subsequently it is checked if each of the five additional variables can clarify variances beyond that. These calculations were not done for the subscales to guarantee certain clarity.

Here it shows (see table 4) that self-regulation is codetermined by two additional variables, namely negative by failure-orientation and negative by negative affectivity. Self inhibition is correlated with experienced dependency in general and volitional inhibition with low positive affectivity. Concerning the scales it shows that self-determination – as subcomponent of self-regulation is affected by negative affectivity and activation control – as another subcomponent – by low failure-orientation.

Criterion	Contr ol Var. Σ R²	Predictors	ΔR² / p	partial Correl ation
<i>SSI-Dimensions</i>		<i>Additional Variables</i>		
Self-Regulation	.469	Failure Orientation	.170 / .000	-.470
		Negative Affectivity	.056 / .003	-.330
Self-Inhibition	.599	Experienced Dependency in General	.026 / .021	+.263
Volitional Inhibition	.379	Positive Affectivity	.052 / .009	-.294
Self-Control	.184	-----		
<i>SSI-Scales</i>				
Self- Determination (SR)	.441	Negative Affectivity	.042 / .011	-.278
Activation Control (SR)	.303	Failure Orientation	.139 / .000	-.449
State-Orientation after failure (SH)	.549	Negative Affectivity	.034 / .008	+.290
Adaptability - Conformity (SH)	.538	Experienced Dependency regarding actions	.042 / .005	+.311
Prospective State- Orientation (VI)	.724	Positive Affectivity	.013 / .047	-.222

Tab. 4: Regression: SSI-parameters as criterions and additional variables as predictors. Control variables are the other not thematic SSI-dimensions and scales, respectively.

Concerning the scales of self-inhibition there also is a differentiation: state-orientation after failure is influenced by negative affectivity and adaptability / conformity due to social dependency with regard to actions.

The subcomponent of volition inhibition, namely prospective situation-orientation, is negatively connected with positive affectivity.

This means that first and foremost it has been proven that there are plausible connections between self-control parameters and additional variables. It also shows that differentiations regarding dependency and affectivity variables are appropriate, although the connections among each other are relatively high which correlations are partialled out.

Influences of Additional Variables on Relations between Self-Construal and Self-Control

A further question was whether additionally recorded variables – failure-orientation, dependency from others in general and with regard to actions, negative and positive affectivity – influence the relations between self-construal and self-control parameters.

With regard to the replicability of the results a moderator approach was chosen as evaluation strategy. For both self-construals – interdependence and independence – separated regressions were calculated for the additional variables on the self-control parameters, contrasting the upper and lower third of the self-construal-scale. Here the respective self-control parameters were also checked by integrating them into the regression comparison first and then examining if the additional variables further explain variance of self-control parameters.

For this, evidences from earlier research were also missing which could have been used. Therefore, the following assumptions are based on plausibility assumptions: it was expected that

- the self-regulation especially of interdependent subjects, is more affected by failure-orientation
- self-inhibition – again of interdependent subjects - could be stronger influenced by experienced dependency with regard to actions and also to negative affectivity, as self-inhibition has to do with building up intentions based on goals and motives
- volitional inhibition could be correlated with negative (interdependent subjects) or by a lack of positive affectivity (independent subjects), respectively. As it is characterized by pondering, heteronomy und hesitancy with regard to realizing intentions – and not building them up – the experienced dependency from others (rather the general variant) should be of influence. Due to the strong social dependency of interdependent subjects the connection is expected to be stronger than in case of independent subjects.

For self-control no expectations were formulated as this variable obviously has minor connections with all others, even the additionally gathered variables.

Results Part Two

The results are summarized in table 5. They include the connections between self-control parameters and the additional variables in terms of partial correlation-coefficients exceeding the control variables. It was additionally checked whether the connections for both self-construal groups differ significantly. Above that, it was stronger taken into account whether connections within the groups were significant or not.

Criterion	Predictors	Interdependent partial r	Independent partial r	t (Diff) Significance
Self-Regulation				
<i>Kontrollvar. R²</i>		.125	.251	
	Failure_Orientation	-.430*	-.571**	p>.05
	Negative Affectivity	-.400*	-.295*	p>.05
Self-Control				
<i>Kontrollvar. R²</i>		.000	.000	
	Positive Affectivity	-.304(*)	.185	p<.05
Self-Inhibition				
<i>Kontrollvar. R²</i>		.333	.527	
	Experienced Dependency regarding actions	+.424*	+.105	p>.05
	Positive Affectivity	-.321(*)	-.057	.05<p<.10
Volitional Inhibition				
<i>Kontrollvar. R²</i>		.333	.270	
	Positive Affectivity	-.259	-.657**	p<.05
	Negative Affectivity	+.307(*)	-.449*	p<.01
	Experienced Dependency in General	+.260	+.438*	p>.05

Tab. 5: Regression of additional variables on the self-control dimensions, separate for both self-construal groups. Controlled are the respective other SSI-Dimensions. Additionally is examined if the correlations differ between both groups (t(Diff)).

The assumptions were only partially true. The previous result was confirmed that self-regulation is negatively correlated with failure-orientation and with negative affectivity. But the expected differences with regard to self-construals could not be found. It only was indicated that failure-orientation correlates with self-regulation of independent subjects up to an average extend. That means the weaker the failure-orientation the stronger the self-regulation in this subgroup.

But there are still differences on scale-level (not included in the table), especially with regard to the scale activation control with the aspects of self-soothing and self-activation. This feature positively correlates with experienced dependency in actions for interdependent subjects and negatively with positive affectivity for independent subjects, i.e. that for them this form of self-control is stronger when the positive affectivity is lower.

Self-control correlates – tendentially significant – negatively in case of interdependent subjects with positive affectivity. The lower the positive affectivity the higher the self-control. The connection is weak and was not predicted although it can post hoc be comprehended.

For self-inhibition the significant connections were as expected: for interdependent subjects self-inhibition was greater when social dependency in actions was high and positive affectivity was low. In case of independent subjects such connections are missing.

With regard to independent subjects volitional inhibition correlates with positive affectivity highly negative ($r=-.657$), i.e. missing positive affectivity encourages the volition inhibition in this self-construal group. The corresponding value with regard to interdependent subjects is insignificant. However, with regard to independent subjects negative affectivity also showed a significantly negative relation to volition inhibition. With regard to interdependent subjects this value is significantly positive by tendency. According to that, negative affectivity would encourage volition inhibition with regard to interdependent subjects and prevent it in case of independent subjects. Moreover, there is a significant correlation with experienced dependency (general) regarding independent subjects. When independent subjects experience social dependency it encourages volition inhibition.

This correlation can especially be traced back to the components pondering / volitional passivity (not reported in the table) which include delay and not immediately realizing intentions. This delay tendency highly correlates with social dependency (positive) and negative affectivity (negative).

Therefore, some predictions are confirmed especially with regard to self-inhibition for interdependent subjects. Volition inhibition is associated with affectivity and experienced social dependency, but more obvious in case of independent subjects. In their case affectivity prevents and social dependency encourages volition inhibition.

Summarizing we could state that there are differences in volitional parameters regarding the self-construal groups. Self-inhibition is – just in case of interdependent subjects – characterized by experienced dependency regarding actions and missing positive affectivity.

Volition inhibition is connected – more obvious in case of independent subjects – with affectivity and experienced dependency. The tendency to delay the realization of intentions is strong if social dependencies are experienced and positive affectivity is low.

The assumption was confirmed that self-inhibition is associated with “dependency regarding actions” and volition inhibition rather with “general social dependency”.

The results point out that it was justified to differentiate between a positive and a negative variant of outlasting affectivity. Although both correlate relatively high with each other (negative), the connections disappear in the regression calculations when combining them into one bipolar dimension.

Discussion

For answering the question about interdependencies between self-construal and self-control no previous results or theoretic approaches could be used. Both have their own theoretic embedding in social-cognition-tradition and volitional psychology. But they have not been put into relation up to now. Here this attempt was made for the first time after some own results but also conclusions from other research justified the assumption that self-construal and self-control have at least some relations.

For the operationalization of constructs or subconstructs, respectively, already established instruments could be used: the self-construal-scale, an optimized version adapted to German conditions from Schürmann (2004) and the Self-Control Inventory of Kuhl & Fuhrmann (2001) which was designed according to the Personality-

Systems-Interaction-Theory of Kuhl (2001). Both used instruments showed satisfactory psychometric parameters during our examination.

The evaluation was hampered by a characteristic of SSI as the constructs are arranged on three levels. The dimensions consist of heterogenic scales which were consisting of subscales on their part. Thus, information value and sophistication are increasing from the upper to the lower level. Eventually there are 22 constructs on the lower level. We concentrated on evaluating the dimensions and subscales, the first and second level. In all evaluations we assumed in particular that we are dealing with a shut-designed research tool, that the constructs show relations with each other and that therefore no isolated connections or differences should be examined. Constructs from one level were either evaluated together – the reason for always calculating discriminant analyses in case of group comparisons – or the influence of the other just not interesting variables was partialled out and controlled, respectively, using regression functions. The consideration of the 22 constructs on the lower level was abandoned in most cases, to prevent the degree of freedom to be too restricted and to guarantee clarity and replicability of the results.

Especially with regard to the subsequent group comparisons between interdependent and independent subjects concerning self-control parameters it shows that the formulation of hypotheses could only be built up on too little previous experiences. On the dimension level there were differences regarding self-regulation and self-inhibition, the assumed differences regarding self-control and volitional inhibition could not be confirmed. But the level construction of the SSI turned out to be useful: the differentiation of self-regulation and self-inhibition showed more revealing results. With regard to subconstructs of self-regulation, namely self-control, activation control (the skills for self-activation and self-soothing) and motivation-control, the markedness was stronger in case of independent subjects. The interdependent subjects, on the other hand, showed more distinct subconstructs of self-inhibition, namely state-orientation after failure, introjection tendency / conformity and pondering tendencies.

In further examinations it was tried to find first indications of the factors which influence the relation between self-construal and self-control. It was assumed that the experienced social dependency is an issue. Here a differentiation between experienced dependency in general and experienced dependency regarding actions was made because latter could rather show relations with self-inhibition and former, on the other hand, with volitional inhibition. It was further assumed that failure-orientation could be a codeterminant as some of the self-control components (paralysis after failure, but also state-orientation) and former own results suggested a relevance of this orientation.

According to the assumptions of the PSI-theory it could be expected that positive or negative affectivity could be an essential process component. As affectivity could not be induced it was decided to survey it in the sense of an outlasting orientation by asking the subjects about how they felt the last month with regard to a series of characteristics.

Moderated hierarchic regression with the inclusion of the total sample revealed some interesting but rather vague results and big tables. As a result another moderator approach was chosen where extreme groups (upper and lower third of the self-construal-scale) were contrasted with each other. In a regression-analytical way it was examined to which extent the additional variables – failure-orientation, social dependency in general, social dependency regarding actions, positive and negative affectivity – are connected with the self-control parameters separated for interdependent and independent subjects.

In case of both groups self-regulation correlated negatively with failure-orientation and negative affectivity. However, on the subordinate level differences were indicated. Self-activation and self-soothing seem to increase in case of interdependent subjects when experiencing dependency from others concerning actions, so as if these forms of self-control were especially appropriate in such social relations. In case of independent subjects the self-control tendency increases when positive affectivity is low, thus, when the outlasting positive mood is weak. Concerning self-inhibition our assumption was confirmed that experienced dependency regarding actions is of greater importance than dependency in general. In case of interdependent and in contrast to independent subjects this connection exists. Above that, missing positive affectivity encourages the self-inhibition of interdependent subjects. When in general no positive mood is experienced and one feels to depend on ones environment regarding actions, there is a tendency to self-inhibition. These results can only be applied to interdependent subjects. The results regarding volition inhibition make it clear that the own theoretic thoughts were focused too much on the interdependent subjects. Here it shows that the added variables are important for the volition inhibition especially with regard to the independent subjects. Affectivity prevents and experienced dependency (general) encourages this form of self-control. The exact analysis shows that these connections are especially to be put down to the variables desurgency / volitional passivity. According to that the tendency to delay and hesitancy regarding actions was high when they experienced themselves as socially dependent und low in case of low marked affects, when affects do not lead to hesitancy. In case of interdependent subjects, on the other hand, it was indicated that negative affectivity alone is associated with volition inhibition.

Overall the group comparisons and the differential regression calculations indeed refer to relations between self-construal and self-control. Factors influencing self-regulation did not show differences for both groups, but for self- and volitional inhibition there seem to be differences due to additional variables. In case of interdependent subjects there are hints that self-inhibition is encouraged by experienced dependency regarding actions and by missing positive affectivity. Under these conditions their competence may be weakened to set goals on their own needs, motivations, values etc.

Regarding independent subjects volitional inhibition seems high if dependency in general is experienced and outlasting positive mood is low. Under these conditions they seem to be hindered to pursue their own goals.

Maybe these results encourage the further research and discussion.

Abstract

One main result of research in self-psychology give evidence that persons differ in the extent to which they define their self as autonomous and independent of the social context or as social and interrelated with the context. While the consequences of self-construal on cognitive variables have been extensively studied, possible influences from motivational or volitional processes have only been rarely investigated. In the first study we tested the connections between self-construal and different forms of self-regulation. Independent subjects had higher scores on self-regulation, interdependent subjects rated higher on self-inhibition. In study 2 we investigated the influence of further variables like affectivity, dependency and failure-

orientation on self-construal and self-regulation and their possible moderation between both groups of variables.

References

- Chang, E.C. (2001). Cultural influences on optimism and pessimism: Differences in western and eastern construals of the self. In: E.C. Chang. (Ed.) *Optimism & Pessimism*. P. 257-280. Washington, D.C.: American Psychological Association
- Ferring & Filipp (1996)
- Götttert, R. & Kuhl, J. (1980). *LM-Fragebogen. Deutsche Übersetzung der AMS-Scale von Gjesme & Nygard*. Psychologisches Institut, Ruhr-Universität Bochum
- Hannover, B. (1997). *Das dynamische Selbst*. Bern: Huber
- Hannover, B. & Kühnen, U. (2002). Der Einfluss unabhängiger und interdependenter Selbstkonstruktion auf die Informationsverarbeitung im sozialen Kontext. *Psychologische Rundschau*, 53, 61-76
- Kitayama, S., Markus, H.R., Matsumoto, H. & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72, 1245-1267
- Kuhl, J. (1995). Wille und Freiheitserleben: Formen der Selbststeuerung. In: J. Kuhl & H. Heckhausen (Eds.) *Enzyklopädie der Psychologie, Motivation und Emotion*. Band 4: *Motivation, Volition und Handlung* (p. 665-765). Göttingen: Hogrefe
- Kuhl, J. (1998). Wille und Persönlichkeit: Funktionsanalyse der Selbststeuerung. *Psychologische Rundschau* 49, 61-77
- Kuhl, J. (2000). *Kurzanweisung zum Fragebogen HAKEMP-K 2000*. Universität Osnabrück
- Kuhl, J. (2001). *Motivation und Persönlichkeit*. Göttingen: Hogrefe
- Kuhl, J. & Fuhrmann, A. (2001). *Selbststeuerungs-Inventar: SSI-K2 (Kurzversion)*. Universität Osnabrück
- Kuhl, J. & Hartmann, K. (2004). Funktionsdiagnostik von Selbststeuerungs- und Persönlichkeitsstörungen. In: H.G. Petzold & Johanna Sieper (Hg.) *Der Wille in der Psychotherapie*. Band 2. p. 45-94. Göttingen: Vandenhoeck & Ruprecht
- Kuhl, J. & Kazen, M. (1994). Self-discrimination and memory: State orientation and false self-ascription of assigned activities. *Journal of Personality and Social Psychology*, 66, 1103-1115
- Markus, H. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 29, 63-87
- Metz-Göckel, H. (2000). Selbst, Motivation und Volition. In: H. Metz-Göckel, B. Hannover & S. Leffelsend (Hrsg.) *Selbst, Motivation und Emotion*. S. 7-22. Berlin: Logos
- Olvermann, R., Metz-Göckel, H. & Hannover, B. (2002). Anschluss-, Leistungs- und Machtmotivation bei interdependenter versus unabhängiger Selbstkonstruktion. In: E. van der Meer et al. (Hrsg.) *Deutsche Gesellschaft für Psychologie: 43. Kongress Humboldt-Universität zu Berlin*. Beitrag Nr. 1380. Lengerich: Pabst
- Olvermann, R., Metz-Göckel, H., Hannover, B. & Pöhlmann, C. (2004). Motivinhalte und Handlungs- versus Lageorientierung bei unabhängiger versus interdependenter Selbstkonstruktion. *Zeitschrift für Differentielle und Diagnostische Psychologie*, 25, 87-103
- Robinson, M.D. & Clore, G.L. (2002) Episodic and semantic knowledge in emotional self-report. Evidence for two judgment processes. *Journal of Personality and Social Psychology*, 83, 198-215
- Scollon, C.N., Oishi, S. & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-Cultural Psychology*, 35, 304-326
- Singelis, T.M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580-591

<i>Superior Dimension</i>	<i>Scale / Cronbachs Alpha</i>	<i>Subscale</i>	<i>Item</i>	<i>Alpha of Subscale</i>
Selbstregulation (Competency) $\alpha = .862$	Self-motivation/ .701	Motivation Control	1. I can see the positive sides of a difficult work 13. When something gets boring I often know how to bring the fun back into it.	.433
		Emotion Control	25. I can change my mood in such a way that everything gets easier. 37. I can purposefully think about funny things when difficulties occur.	.692
	Activation Control / .781	Self-Activation	2. As soon as obstacles turn up I notice that I get more active. 14. I only reach my best form when difficulties occur..	.710
		Self-Soothing	26. Even in a state of strong internal tension I can relax quickly. 38. I can ease my tension when it disturbs me.	.707
	Self-Determination / .710	Self-Congruence	3. During my actions I mostly feel that it is me who wants to act like that. 15. Mostly I act conscious of the fact that I want to do what I do.	.613
		Optimism	27. Even when problems occur I am mostly sure that I can handle them. 39. Even in difficult situation I believe in being able to solve the problem somehow.	.816
Volition-Inhibition (Self-Command) $\alpha = .880$	Prudence / Prospective State-Orientation / .748	Lack of Initiative	4. When something has to be done I start with it without hesitation. (reversed) 16. When a task has to be done I immediately deal with it. (reversed).	.788
		Energy Deficit	28. I often feel rather listless. 40. I often lack energy.	.805

	Pondering – Volitional Passivity / .847	Pondering – Volitional Passivity	5. I often delay unpleasant things. 17. I delay many things.	.825
		Heteronomy	29. I often wait to deal with a task until others are getting impatient. 41. I often deal with unpleasant things at the last minute.	.675
	Self-Criticism – Lack of Concentration / .714	Self-Criticism – Lack of Concentration	6. I often have to think about things that have nothing to do with what I do. 18. My thoughts often move away from the thing I am supposed to concentrate on.	.848
		Low Impulse Control	30. It often happens to me that I cannot put off a sudden demand. 42. When a temptation occurs I often feel defenceless..	.560
Self Control $\alpha = .740$	Affective SC – Anxious Self-Motivation / .670	Self-Discipline	8. One often has to check oneself in life. 20. There are many things which I simply have to do, even if I don't like doing them.	.472
		Anxious Self-Motivation	32. When I have to deal with an unpleasant task, I imagine how bad I would feel if I am not ready in time. 44. I often only get moving by imagining how bad I would feel if I don't deal with it.	.816
	Cognitive Self-Control, - Planning / .745	Goal Realization	7. Several times a day I envision all the things I want to do. 19. I continuously bring the things to my mind which I haven't dealt with yet.	.771
		Ability to plan	31. Before I start an extensive work, I plan how to go ahead. 43. Before I start something new I mostly make a plan. mir meist einen Plan.	.819
Self Inhibition $\alpha = .833$	Adaptability – Conformity / .760	Introjection Tendency - Conformity	9. I often have the feeling that I have to fulfil the expectations of others. 21. I often fear that I lose the sympathy of others when I don't do what they expect me to do.	.692
		Fragmentation	33. My behavior often seems contradictory because there always appears another side of me. 45. I have very contradictory sides.	.879

	Concern – State Orientation after Failure / .850	Pondering – Negative Emotionality	10. When something bad happens it takes a long time before I can concentrate on something else. 22. After a failure I have to think for a long time about how it could have happened, before I can concentrate on something else.	.719
		Paralysis after Failure	34. After an unpleasant experience I cannot get rid of the thoughts which reduce my energy. 46. When something unpleasant has happened I often lose the drive.	.786
General Stress Load $\alpha = .915$		Strain – Situational Stimulus of Volition-Inhibition	11. I experience a lot of conflicts between contradictory demands concerning my way of living. 23. My current living conditions are rather hard. 35. I have to deal with a lot of problems. 47. Right now I am confronted with many problems in my life.	.849
		Threat – Situational Stimulus of Self-Inhibition	12. A lot has changed in my life which I have to deal with. 24. I have to deal with great changes in my life. 36. Recently I had a lot of trouble. 48. I have to get used to a totally new situation in my life.	.861

Tab. 1: Dimensions, Scales and Subscales of SSI (Selbststeuerungs-Inventar – Self-Control Inventory) with internal consistencies.