Chapter 5. The Development of New Personality and Behavior Measures

One of the goals of the present study was to examine different dimensions of the older individual's personality and their relation to dependency in caregiving contexts. The present point of inquiry is thus focused rather narrowly on a special kind of person in a special context. To that end, it may prove more fruitful to focus on certain, domain-specific facets of personality. As argued in various sections in **Chapter 3,** when personality constructs can be tied to specific persons or contextual features, they may provide more accurate explanations of dependent behavior in a given setting.

This chapter thus discusses the development of new measures, including three new personality scales and one behavioral rating scale. The basic impulse for exploring these facets of personality came from observations in a caregiving setting. For each personality scale, a large pool of items were first drafted and then tested on samples of elderly nursing home residents. As this chapter attests, the process involved trial and error, and in most cases, the concept under investigation, or the way it was operationalized, underwent major revision. The psychometric properties of the revised scales, including evidence of item-scale consistency and convergent validity, conclude this chapter.

1. Observation in a Caregiving Setting

To begin understanding any psychological phenomenon, one must first be able to observe it. Thus, I set out to understand dependency among the elderly by observing the elderly individual in the caregiving context. In this manner, I attempted to gain insight into the individual differences, or more precisely, the psychological constructs, that promote dependent behavior in geriatric patients.

I completed a six-week internship at a skilled geriatric nursing facility in Heidelberg. Most of the 19 residents on the ward were in intensive care, and quite a few were bedridden. Each patient had a single room to him- or herself, but there were no recreational activities as such offered on the floor. A communal dining area and bathing room were used by roughly half of the residents; the other half preferred to take meals in their rooms and/or could wash themselves without the

assistance of a lifter.

The internship proved to be a truly enriching experience and provided many insights into the challenges posed by the caregiving situation. I was able to approach both staff and residents in a natural and uninhibited manner, and freely discuss their problems and concerns. Observing real-life caregiving interactions over a period of weeks also afforded insights into the fundamentals of geriatric care, such as the ubiquitous problems of limited mobility, medication administration, and psychosocial care. I also inspected medical files in order to gain an understanding of the information normally logged in a skilled nursing facility, and attended staff meetings to observe patterns of communication among care personnel. The countless observations made during the research practicum were indispensable to the formulation of hypotheses and hence, the study's design.

2. Construction of New Measures

Up to now, I have discussed personality functioning in terms of the dependent personality, trait affiliation, and attitudes toward authority. These are global concepts which are relevant to a wide range of persons, contexts and activities. However, it was thought that the more specific constructs of *stoicism*, *caregiver affiliation*, and *respect for medical authority* might offer more precise explanations of behavioral and psychosocial adjustment. As argued earlier (see **Chapter 3**), these constructs may be more relevant in the caregiving context, and more relevant in terms of elderly individuals, in explaining dependency.

2.1 Measuring Stoicism

Conversations with numerous elderly individuals seemed to indicate that they were rather stoic in their outlook on life. On the one hand, the elderly persons observed seemed to display humility in face of their disability. Yet remarkably, they also remained willing to doggedly struggle with such limitations. These features of personality could be integrated into the concept of stoicism. It reflects a life philosophy characterized by self-reliance, modest aspirations, and quiet endurance of pain.

2.1.1 Initial Examination of the Stoicism Scale

The *Stoicism* scale was created according to the guidelines for scale construction listed in **Chapter 4**. First, an attempt was made to make the scale fairly heterogeneous in terms of content. Redundancy, i.e., asking essentially the same question with a slight variation in format, was strictly avoided. Moreover, most of the items reflect the individual's general attitude toward adversity (i.e., refer to what one "should" do), though one or two items tap behaviors. Items for the scale were formulated in order to minimize the effects of social desirability. An effort was also made to include at least a few negative items (three in all). Finally, because the elderly individuals under investigation are often prone to fatigue, the scale was kept as short as possible.

The *Stoicism* scale was then administered to a small sample of nursing home residents (N=19) in order to check comprehensibility, word choice, and response format. The reliability of the scale was then examined in a larger sample of university students (N=50). Deleting two items, the scale showed an alpha correlation of .69 (see **3. Psychometric Properties of New Measures,** below).

2.2 Measuring Caregiver Affiliation

Caregiver affiliation is a domain-specific variant of the more global affiliation concept. Earlier, it was argued that every caregiving interaction affords an opportunity for human contact, and those who enjoy such contact might be predisposed to solicit more help. One might therefore say that the concept of caregiver affiliation goes to the very heart of the matter: it is not whether a person is *generally* friendly and disposed to forming attachments, but rather whether one *specifically* seeks such relations with one's *caregiver,* that is likely to result in higher dependency on nursing staff.

2.2.1 Social Motivations: The Precursor to Caregiver Affiliation

In accordance with the literature on social support (see **Chapter 3**), the concept of caregiver affiliation was explored in a differentiated manner. As I proceeded, however, the theoretical differentiations became unworkable, and this section of the questionnaire underwent major

revisions.

The original battery of 36 items attempted to assess various needs, desires, and preferences that an elderly individual might have with regards to a caregiver. Three different kinds of motivation were differentiated:

1) Security Motivations (8 items)
    a) Accessibility
    b) Responsiveness

2) Social Contact Motivations (16 items)
    a) Casual Contact
    b) Physical Contact
    c) Affiliation
    d) Intimacy

3) Balance Motivations (12 items)
    a) Fear of Being a Burden
    b) Shame of Needing Help
    c) Desire for Reciprocity

It was hypothesized that some motivations would be clearly more important than others in the caregiving interaction.

The *Social Motivations* battery was examined in a very small pilot study (N=19 nursing home residents). The formulation of several items was found to be poor; respondents particularly disliked references to "my" caregiver, since their particular nursing home did not assign them a primary caregiver. To be quite candid, respondents found several other items in the battery to be quite odd or out of place.

An examination of the psychometric properties demonstrated a Cronbach's alpha of .58 for the composite scale. Nonetheless, a number of subscales exhibited unsettling reliabilities (e.g., the

Intimacy Motivations subscale had a negative alpha). Upon review, the battery appeared lengthy and too heterogeneous, which ran contrary to the essential point of inquiry, i.e., creating a unified dimension of desire for affiliation with one's caregiver. Major revisions, or to put it more precisely, major simplification of the construct seemed necessary.

2.2.2 Construction of the Caregiver Affiliation Scale

It was decided to construct a new scale, entitled *Caregiver Affiliation,* based on the items that seemed to work well in the field. In an effort to make the dimension more homogenous, security motivations were dropped. (Initial analysis revealed little interindividual variation in this section anyhow.) The final selection of scale items was primarily determined by item-scale correlations.

The original pool of 36 items was collapsed to 12. Six of these assess the individual's general tendency to affiliate with the health care personnel (*Social Capital Motivations*; alpha of .81), whereas the other six items assess the individual's desire for balance or reciprocity in the caregiving relationship (*Balance Motivations;* alpha of .89). Cronbach's alpha for the composite scale was .59 (see **3. Psychometric Properties of New Measures,** below).

After revisions, the *Caregiver Affiliation* scale retained its sound construction. The scale was kept purposely short to reduce fatigue and contains seven positively poled and five negatively poled items to counteract affirmative answer tendency. Social desirability, redundancy, and applicability issues were taken into consideration in reformulating items. Finally, the scale has a homogenous, nonbehavioral constituency: virtually all of the items require the subject to report feelings and preferences toward their caregiver.

2.3 Measuring Respect for Medical Authority

The amount of dependency exhibited by the elderly care recipient, this paper has argued, might be influenced by his or her attitude towards authority (see **Chapter 3**). Professional caregivers obviously enjoy some measure of authority -- by virtue of the knowledge and skill they bring, and by the legitimacy inherent to their position in the caregiving dyad. The power hierarchy of the institutional environment is especially evident, with divisions between the facility administrators,

station supervisors, geriatric nurses, and unskilled nursing aides. Therefore, the initial point of inquiry was to examine how *respect for institutional authority* influences dependency in elderly care recipients.

2.3.1 Respect for Institutional Authority: The Precursor to Respect for Medical Authority

The *Respect for Institutional Authority* scale was thus created. This 17-item scale was designed to assess the elderly individual's disposition to conform to the dictates of the health care administrator, nursing staff, and institutional regulations. The scale was basically a modified version of Lederer's (1983) *Respect for Adult Authority* scale (*Skala-für-Respekt-vor-elterlicher-Autorität*); five items from the original (14-item) scale were transposed from a family to an institutional context. Another two items in the new scale were taken from the *Skala-Sozialer-Inkompetenz* (*Konformitätsstreben;* Maiwald, 1985) and similarly modified. Finally, an additional seven original items were added. The scale proved somewhat difficult to construct, especially in light of the fact that the scale was intended for use in different caregiving contexts (i.e., in both institutional and homecare settings). Obviously, the home environment is free of institutional regulations.

An initial examination of the items with a sample of N=19 nursing home residents was disheartening. The alpha correlation for the scale was far too low (.16). A review of the items showed some to be poorly formulated and / or socially desirable. Of course, the whole point of examining a larger pool of items is to identify and discard the bad ones, and by deleting several problematic items, the scale could have been saved (with an alpha of .64). However, given the mediocrity of the scale's content, as well as the clumsy way items from previous tests were transposed to the caregiving context, the present author thought it better to wipe the slate clean and try again.

The decision was made to shift focus to respect for medical authority. The revised concept encompasses proper understanding of the patient role, trust in one's doctor, beliefs regarding the efficacy of medical system (particularly medication), and knowledge of patient's rights. It reflects a marked methodological improvement because the validity of the new scale could be

established using an independent source (i.e., a panel of medical experts). Another advantage of the new concept is that it can be used with a wider variety of developmental groups (e.g., healthy elderly, younger individuals) in order to examine the effect of age and living context on personality processes. In short, the *Respect for Medical Authority* scale, as conceived, should demonstrate higher validity and be able to accommodate the developmental nature of the present inquiry.

2.3.2 Construction and Initial Examination of the Respect for Medical Authority Scale

First, a large number of items (31 in all) were created from the not-so-obvious fallacies that an authoritarian person might hold about the proper provision of medical care. Many of the items were taken directly from medical textbooks and describe the infringement of patient rights, or the legal obligations doctors have with regard to every patient. Since these items reflect fundamental rights and privileges that have passed into law, their validity need not be confirmed by a third source. In effect, the law is the confirmation of the item's validity in this context.

Each item was then formulated with the cooperation of a practicing physician, and presented to a panel of three doctors for further validation. The panel included a surgeon, an internist, and a psychiatrist. If the doctors were not unanimous in their confirmation of an item (e.g., "Medication always helps." is a false statement), it was discarded. Unlike the *Stoicism* and *Caregiver Affiliation* scales, which are *norm-referenced,* the *Respect for Medical Authority* scale is a *criterion-referenced* test (Rust & Golombok, 1989). That is, the scale is, to a large extent, an achievement test measuring the respondent's knowledge about proper behavior and attitudes in medical contexts. A true-false answer format was selected to highlight this fact.

The pilot study was conducted with a small student sample (N=50) using the 26 items that were approved by the medical panel of experts (see **3. Psychometric Properties of New Measures,** below). By and large, the results were in accordance with expectations, with an alpha of .67 for the final version of the scale. Again, the number of items selected for inclusion in the final version of the scale was small (12 in all) in order to minimize patient fatigue. Furthermore, items were selected to show high item-scale correlations, reflect a broad spectrum of content, and be of particular interest to research on geriatric care. In a few instances, items of particular theoretical

interest were chosen over items with a relatively higher item-scale statistic.

The final version of the *Respect for Medical Authority* scale fulfilled most of the design criteria described in **Chapter 4,** above. Only four of the 12 items are scored negatively, however, indicating a slight positivity bias.

2.4 Measuring Social Dependency

Social dependency was the major outcome variable in the study and serves as a complement to physical dependency. Whereas traditional geriatric assessment describes the elderly person's need for physical care, the following scales describe his or her need for *psychosocial* care.

The *Social Dependency* rating scale consists of the following dimensions:

Regulation of Health and Activity

1) Self-care Maintenance
2) Health Maintenance
3) Leisure Activities

Regulation of Psychosocial Functioning

4) Companionship
5) Emotional support
6) Authority

2.4.1 Initial Examination of the Social Dependency Rating Scale

The construction of any instrument is always more complex than it appears, and creating an instrument to assess social dependency presents the researcher with a particular challenge. Two broad principles were used to select forms of social dependency for investigation. Each dimension of social dependency was designed to:

1) *represent a different facet of social dependency.* Social dependency can occur in various life domains. Instead of narrowing the scope to just one specific area, the study tried to address the many different ways in which the elderly may become dependent.

2) *possess relevance for practical work with the elderly.* The dimensions were created based upon my own experience in healthcare settings. It was hoped that the applied nature of the study would provide fruitful insights regarding the planning and provision of geriatric care.

The principles used to construct each item included:

1) *an emphasis on overt behavioral criteria.* As Bornstein (1993) suggests, dependency can be expressed in vastly different ways. There are cognitive, emotional, and motivational components to dependency, but in order to ensure high interrater reliability, overt behavioral components were emphasized. This is simply prudent when constructing a rating scale -- behaviors can be observed, whereas emotional or cognitive components must be inferred.

2) *an emphasis on dysfunctional behaviors.* Dependency, as argued earlier, can be functional or dysfunctional. In order to facilitate the interpretation and application of results, social dependency had to be defined as a favorable or unfavorable outcome, and it was decided to focus on dysfunctional or maladaptive behaviors. Dysfunctional behaviors reflect an excessive need for the nursing staff to engage, motivate, reassure and guide the individual. Of course, deciding whether a given behavior is functional or not is somewhat subjective. There is nothing wrong, for example, with a nursing home resident playing a game of cards with a staff member. However, problems arise when he or she does so to the exclusion of other social activities. The implicit assumption, of course, is that the elderly *should* spend at least some free time with peers and *should* have a number of hobbies or interests which they can pursue alone. Failure to do is interpreted as dysfunctional behavior.

3) *passive as well as active behaviors.* Dependency has also been described as being passive vs. active (Bornstein, 1993). Although such distinctions may be somewhat problematic, the scales include behaviors that entail little or no activity (waiting for help) as well as those that

require more effort (actively soliciting help).

4) *applicability to a broad range of persons.* The great interindividual variance in functional health is a well-established fact. These scales were designed to apply to elderly individuals with a wide range of functional deficits -- especially those in skilled nursing facilities, who generally require a great deal of care. Moreover, the scales were also designed for use in different contexts -- from inhome care (where only one caregiver is available at a time) to institutional care settings (where multiple caregivers are present). The only requirement for using the scales is that the subject receive some form of help or care.

The reliability and validity of the *Social Dependency* rating scale were then examined in a pilot study. Three highly experienced staff members were asked to rate 11 residents using the instrument. All of the staff members were well-acquainted with, and had provided care to, each target resident. Staff were paid DM 35,- for their efforts.

The *Social Dependency* rating scale showed interrater reliabilities (Kendall's W) between .71 (maintenance of health) and .47 (emotional support). Although some of these correlations appear rather low (see **3. Psychometric Properties of Newly Designed Scales,** below), they were in line with other behavioral rating instruments employed in geriatric settings (Zimber, Gaeth & Weyerer, 1996). Feedback from the staff was uniformly positive and constructive. Therefore, the *Social Dependency* rating scale was retained without major modification.

3. Psychometric Properties of Newly Designed Scales

Because this dissertation employed a number of newly designed personality and rating scales, the psychometric properties of the instruments employed, including their reliability and validity, must be carefully scrutinized.

3.1 Scale Reliability

As with the standardized scales, reliability was measured using Cronbach's alpha. Test-retest reliability could not be examined in the present, cross-sectional study.

The *Social Dependency* rating scale was also examined in terms of its interrater reliability using Kendall's tau.

3.1.1 Personality Scales

As mentioned earlier, the reliability of the *Stoicism, Caregiver Affiliation*, and *Respect for Medical Authority* scales was examined in a series of pilot studies. An overview of the essential results from these pilot studies is presented in **Table 4,** below.

Table 4. Alpha Reliabilities for New Personality Scales (Final Pilot Study)

New Personality Scale	Sample	Number of Items Examined	Number of Items Selected	Alpha Correlation of Selected Items
Stoicism	62 students	10	8	.69
Caregiver Affiliation	12 nursing home residents	36	12	.59
Respect for Medical Authority	50 students	26	12	.67

The samples used in the pilot studies were neither large nor representative; hence, the alpha correlations observed must thus be treated with caution. However, the alpha correlation is a stringent test of scale reliability. Overall, the scores reported in **Table 4** were judged to be quite satisfactory, especially given the brevity of the scales the and heterogeneity of the items employed.

The psychometric properties of the new scales were, of course, re-examined in the main study (**Table 5,** below).

Table 5. Alpha Reliabilities for New Personality Scales (Main Study)

New Personality Scale	Sample	Alpha Correlation
Stoicism	114 elderly care recipients and 72 students	.62
Caregiver Affiliation	86 elderly care recipients	.56
Respect for Medical Authority	114 elderly care recipients and 72 students	.82

Once again, the alphas for the *Stoicism* and *Caregiver Affiliation* scales were satisfactory (albeit slightly lower than those found in the pilot study). Of course, because the new scales have not been subject to the same extensive process of development that the *PRF* scales have, it is only natural for them to be somewhat lower than their standardized counterparts (*Succorance, Affiliation*). However, note that the *Respect for Medical Authority* scale had an excellent alpha score, higher than the one found in the pilot study, and even better than its standardized counterpart (the *Respect for Unspecific Authority* scale).

It should be mentioned here that the size and composition of the samples varied according to the point of inquiry. Naturally, only care recipients could complete the *Caregiver Affiliation* scale. Since norms are available for the *Succorance* and *Affiliation* scales, students were not asked to complete these measures. The complete sample, however, was used to test the alphas of the remaining scales. (Since these measures were designed for all persons, young and old, a heterogeneous sampling procedure is more appropriate for the reliability analysis; see Kline, 1986)

3.1.2 Social Dependency Rating Scale

The psychometric properties of the newly designed *Social Dependency* rating scale were also examined in a pilot study. Interrater reliability was assessed by calculating Kendall's tau correlation between three independent raters. Each rater was a caregiver who: (1) had years of professional experience, (2) provided care to the target person, (3) had known the target person for at least 6 months. These caregivers assessed a sample of 11 target persons in terms of their

dependence upon staff for self-care maintenance, health, leisure activities, companionship, emotional support and authority on a 5-point, Likert-type scale (0 = fully independent, 5 = fully dependent).

Table 6. Tau and Alpha Reliabilities for Social Dependency Rating Scale (Pilot Study)

Social Dependency Rating Scale	Tau Correlation	Alpha Correlation
Self-Care	.71	.87
Health	.81	
Leisure Activities	.73	
Companionship	.63	
Emotional Support	.53	
Authority	.55	

As **Table 6** shows, the various dimensions of social dependency demonstrated sufficient reliability in the pilot study. Interrater reliability ranged from very good (health) to fair (emotional support). The statistics observed are comparable to other rating scales employed by care personnel (Zimber, Kristina and Weyerer, 1996). The *Social Dependency* rating scale also demonstrated very good homogeneity.

Raters were encouraged to provide feedback regarding the utility of the scales for application in geriatric settings. Reactions to the *Social Dependency* rating scale were uniformly positive, leading to only slight revisions to the original procedure. For example, the range of possible scores was extended from five to seven points, and the phrasing of some items were modified. The reliability of this scale was then reassessed in the main study (see **Table 7,** below).

Table 7. Tau and Alpha Reliabilities for Social Dependency Rating Scale (Main Study)

Social Dependency Rating Scale	Tau Correlation	Alpha Correlation
Self-Care	.64	.95
Health	.52	
Leisure Activities	.55	
Companionship	.55	
Emotional Support	.60	
Authority	.49	

The interrater reliability of the *Social Dependency* rating scale seems to have dropped somewhat between the pilot and main studies. This may be due, in part, to the fact that the range of each subscale was increased from five to seven points. As the results indicate, obtaining agreement on the revised scale was more difficult.

Interrater agreement regarding social dependency is somewhat low (average tau of .56 compared to .80 or higher for the *ADL* scales reported by Willis, 1991). To some extent, this has to do with the construct at hand. Because the care recipient is likely to share different levels of intimacy and express different social / emotional needs with different caregivers, judgements of social dependency are likely to be less reliable than judgements of physical dependency. In support of this notion, Zimber, Gaeth & Weyerer (1996) report that the interrater reliability of social behavior among nursing home residents is generally lower than the interrater reliability of care needs. In an examination of 20 problematic behaviors, kappa values of .50 or higher were judged to be "good" indications of interrater agreement, and the results obtained by the *Social Dependency* scale do, in fact, meet this criterion.

Finally, the alpha correlation for the *Social Dependency* rating scale, upon reflection, appears rather high. Recall that each subdimension of the scale was constructed to reflect a different facet or kind of social dependency. While consistency between items on a scale is generally desirable, here, the alpha correlation appears somewhat inflated.

Without doubt, the *Social Dependency* rating scale could profit from further refinement.

3.2 Construct Validity

In order for a new construct or procedure to be useful, it must not only be reliable, it must also be valid. The first step in demonstrating the construct validity of a new scale is to assess its relation to sociodemographic variables. A second, and perhaps more important method of confirming the validity of a construct is to measure its correlation with an established (or standardized) procedure, which gives us an indication of its concurrent validity.

3.2.1 Personality Scales

Simple bivariate correlations between personality and sociodemographic variables are presented in **Table 8.**

Table 8. Bivariate Correlations Between New Personality and Sociodemographic Variables

New Personality Scale	Sociodemographic Variables		
	Age	Gender	Education
Stoicism	.24**	ns	ns
Caregiver Affiliation	ns	ns	ns
Respect for Medical Authority	ns	ns	-.23*

N = 114 elderly care recipients
* $p < .05$
** $p < .01$
*** $p < .001$

The validity of newly designed constructs could only be partially confirmed. In line with expectations that older individuals, due to their exposure to hardship, are naturally more stoic, stoicism was related to age. Stoicism did not vary by gender, however, which one might expect (i.e., more "toughness" in men). This anomaly might be explained by the fact that the men were generally younger and physically weaker than the women (see **Chapter 7**), two factors which might contribute to the equivalency in stoicism scores between the genders.

Respect for medical authority presupposes accurate knowledge of patient rights and a proper understanding of the doctor-patient relationship; its relationship to education was therefore expected.

Contrary to hypothesis, however, caregiver affiliation was unrelated to any of the sociodemographic variables. One might have expected gender to play a role here, with women more willing to become friendly with their caregivers. This is especially true in light of the fact that most of the caregivers were themselves female; presumably, an older woman can more easily bond with a younger woman. Interestingly, caregiver affiliation was higher among those who had known their caregivers for a longer period of time or knew their caregivers well (R=.20 and

.21; p's < .10). Familiarity would be expected to increase the desire to affiliate with one's caregiver in this manner.

As mentioned earlier, the construct validity of new constructs can be measured by their correlation to already established measures. These statistics are presented in **Table 9** (below).

Table 9. Bivariate Correlations Between New and Standardized Personality Scales

	Succorance	Affiliation	Respect for Unspecific Authority	Stoicism	Caregiver Affiliation	Respect for Medical Authority
Succorance	1.0					
Affiliation	.48***	1.0				
Respect for Unspecific Authority	ns	ns	1.0			
Stoicism	-.53***	-.37***	.24*	1.0		
Caregiver Affiliation	ns	.25*	ns	ns	1.0	
Respect for Medical Authority	ns	ns	.39***	.33***	ns	1.0

N = 114 elderly care recipients
* p < .05
** p < .01
*** p < .001

In general, **Table 9** presents excellent evidence for the convergent validity of the new constructs. The correlations between succorance and stoicism, as well as those between respect for unspecific authority and respect for medical authority, were very high. Though not as pronounced, the relation between caregiver affiliation and affiliation was still significant. The trait dependency and affiliation concepts were closely linked, as has been found elsewhere (Ostendorf, Angleitner and Ruch, 1986).

Discriminant validity for caregiver affiliation and respect for medical authority concepts could also be largely confirmed. Unfortunately, the same could not be said for stoicism: this variable correlated highly with virtually every other construct assessed (except caregiver affiliation).

3.2.2 Social Dependency Rating Scale

The validity of the social dependency construct can be demonstrated by examining correlations with sociodemographic variables (**Table 10**).

Table 10. Correlations Between Social Dependency Rating Scale and Sociodemographic Variables

Social Dependency Rating Scale	Sociodemographic Variables		
	Age	Gender	Education
Social Dependency Rating Scale	-.31**	ns	ns

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

No firm hypotheses regarding social dependency and sociodemographic variables were made. However, the analysis showed older individuals to be less socially dependent upon caregivers, an unexpected and interesting finding. This could perhaps have something to do with the age gap between the elderly and their caregivers. Older individuals arguably have less in common -- and hence a more difficult time bonding -- with young persons, such as caregivers.

Consider now the bivariate correlations between various forms of dependency, a perhaps more important measure of the social dependency construct's validity (**Table 11,** below).

Table 11. Bivariate Correlations Between Dependency Rating Scales

	ADL	IADL	SD
ADL	1.0		
IADL	.85***	1.0	
SD	.56***	.44***	1.0

ADL = Activities of Daily Living
IADL = Instrumental Activities of Daily Living
SD = Social Dependency

all p's < .001

Different measures of functional health (*ADLs* and *IADLs*) correlated quite highly with one another, obviously. However, these measures of physical dependency were also strongly associated with social dependency, e.g., need for motivational and emotional support. The most plausible interpretation of this finding is that physical dependency leads to social dependency. To take an extreme example, a person who is confined to his or her bed lacks the physical resources to procure social contact. He or she must subsequently rely to a greater extent on staff for companionship and emotional support.

A final method of determining the validity of the *Social Dependency* rating scale is to simply ask professionals their opinion of it. The caregivers who participated in this study have a wealth of knowledge and experience regarding the elderly, and their opinion of the scale's relevance for geriatric work must therefore be heavily weighted.

Table 12. Caregiver Evaluation of Social Dependency Rating Scale

Social Dependency Rating Scale	Did you have any problems completing the rating scale?*	How relevant is this scale for work with the elderly?**
Self-care	1	3.7
Health	0	3.5
Leisure Activities	0	3.2
Companionship	0	3.2
Emotional Support	0	3.5
Authority	0	3.1
Total	**1**	**3.4**

*Number of problems reported
**Rating on a 5-point scale: 0 = very irrelevant to 4 = very relevant

N = 17 professional caregivers (71% reporting)

As can be seen from **Table 12,** virtually no problems occurred completing the rating scales. Moreover, every dimension of the *Social Dependency* rating scale received an average rating of 3 or higher, indicating the dimension to be "relevant" to "very relevant" in the care of the elderly.

4. Summary

This section of the paper has examined the psychometric properties of three personality scales (*Stoicism, Caregiver Affiliation,* and *Respect for Medical Authority* scales) as well as of a behavioral rating scale (*Social Dependency* rating scale). The results from a number of pilot studies, as well as the main study, are clear. The reliability of the newly designed personality scales can be judged to be satisfactory or better, especially given their brevity. In most instances, the scales performed as expected with regards to sociodemographic variables and other, well-established constructs. The one exception, perhaps, was the marked failure to convincingly demonstrate the discriminant validity of the stoicism construct.

Furthermore, the newly designed behavioral rating scale was generally shown to be both reliable (using indices of consistency across items and raters) as well as valid (comparing scores on the new scale to conventional measures of functional health). Although some dimensions of social dependency appeared to be harder to rate than others, i.e., had somewhat lower interrater

reliabilities, this is perhaps the unavoidable consequence of measuring the level of social / emotional support, which naturally varies in different staff-patient constellations.