Chapter 2. A Classical Psychological Approach to Dependency Among the Elderly

Over the last 30 years, M. Baltes and colleagues have diligently explored behavioral dependency among elderly care recipients. Early research, beginning in the mid 70s, focused on experimental manipulations designed to foster independent self-care in nursing home residents. This was followed by sequential observations in the field, which painstakingly documented thousands of behavioral interactions in a wide variety of different caregiving contexts. Drawing upon these insights, an ecological intervention was then designed to train nursing staff in techniques for reducing behavioral dependency. This chapter is based almost wholly on this extremely useful body of work.

1. Models of Social Reinforcement

Most of the research on dependency in caregiving contexts draws upon the theory of social reinforcement (Horgas, Wahl & Baltes, 1996; Baltes & Horgas, 1997). According to this view, dependency is the product of operant conditioning. The social environment contingently rewards dependent behavior and punishes (or, alternatively, ignores) independent behavior. Dependency among elderly care recipients is thus learned, and for this reason, the theoretical framework has been termed the model of learned dependency.

The Baltes' research group is quick to contrast this approach with the model of learned helplessness (Seligman, 1975). Helplessness is learned when the social environment reacts in a noncontingent manner to the individual. For example, subjects who have been repeatedly exposed to a series of aversive events over which they have no control soon become helpless: they no longer make attempts to escape the noxious stimulus, even though it is in their power to do so. Noncontingency, to be absolutely precise, simply means that the individual's actions do not produce a predictable consequence from the environment. The state of helplessness is the mother of all motivational deficiencies: when individuals learn that their actions have no consequence, they soon realize that their efforts to achieve their goals or control their environment are pointless. It is no wonder that such persons quickly become passive and depressed.

Although both of these models are based upon social learning, the difference between them is clear. The model of learned dependency posits a contingency between dependent behavior
and the social environment's response, whereas the model of learned helplessness states that there is no such contingency. Note that noncontingency exists when the environment's response to the individual's behavior is *unpredictable* (the environment responds in a random manner) or *unvarying*, i.e., the environment responds in the same manner, regardless of how the individual acts. However, if a *differential* pattern of response occurs, then there is a contingency between individual behavior and environmental response. Evidence of the latter kind in caregiving contexts would support the model of learned dependency.

### 2. Sequential Observations

Sequential observations on behavioral dependency in long-term care environments have been made in no less than six studies (Baltes, Burgess & Stewart, 1980; Baltes, Honn, Barton, Orzech & Lago, 1983; Barton, Baltes & Orzech, 1980; Lester & Baltes, 1978; Baltes, Kindermann & Reisenzein, 1986; Baltes, Kindermann, Reisenzein & Schmid-Furstoss, 1987). Baltes (1988) provides such an excellent review of this work, however, that only the essentials will be recounted here. The elders who participated in these studies were over 65 years of age and not highly confused, acutely ill, or completely bed-ridden. The analysis comprised sequential observations of the subject and their social partners over an extended period of time, sometimes months. Using a behavior coding system, these studies documented many thousands of interactions between elders and their social partners. The behavior of the elderly care recipient was classified according to five categories (dependent self-care, nonengaged, independent self-care, constructive engagement, and obstructive engagement), whereas the behavior of the social partner included six categories (independent-supportive, dependent-supportive, engaged-supportive, nonengaged supportive, no response, and leaving). Perhaps the most important unit of analysis was the behavior chain, i.e., the elder's behavior and the social partner's response to it.

The major finding in all of these studies was that dependent behaviors on the part of the resident were consistently and immediately followed by support from the social partner. Conversely, independent behaviors exhibited by the elder were largely ignored. Because dependency was *contingently* reinforced, the model of learned dependency could be upheld. Specifically, dependent behaviors had *positive* consequences (i.e., the elder received attention and help), whereas independent behaviors had *neutral* or *negative* ones (i.e., the elder was ignored, and in some cases, scolded for attempting an activity on their own). The staff thus
did not react in a haphazard fashion to residents' needs, nor did they uniformly offer help and support regardless of what the residents were doing. Instead, they showed the differential pattern of contingent reinforcement postulated by the model.

Of further interest to this depiction of dependency is that individual differences did not play a significant role. Factors such as length of institutionalization, amount of care needed, or gender did not significantly alter the basic pattern of interaction. This not only signifies that the behavioral pattern is robust, it places the source of the dependency squarely on the social environment, not the elderly person in question.

Over the next few years, this line of inquiry was extended into community settings (Baltes & Wahl, 1992). By this time, the research group had come to refer to the particular pattern of interaction described above as the dependency support script. The findings once again demonstrated that caregivers in both institutional and home environments tend to support individuals engaging in dependent behaviors and ignore those engaging in independent ones.

Of course, a major point of inquiry in this study were specific setting effects. And indeed, there were huge differences in the behavior profiles of elderly in different caregiving contexts. Surprisingly, the elderly living at home exhibited over five times as many dependent behaviors than those living in institutions (39.5% vs. 7.2% of coded behaviors). Moreover, homecare staff engaged in almost twice as many dependence-supportive behaviors as institutional staff (61.2% vs. 34.5% of coded behaviors). This may have been partially due to differences in behavior sampling procedures, i.e., observations in institutions appear to have included many more incidental encounters -- and not simply caregiving interactions -- between staff and residents.

Significantly, the pattern of interaction in home settings diverged from the usual script: the elder at home who engages in independent selfcare is often met with dependent-supportive behavior from the staff. This incongruity is hard to explain -- it certainly runs counter to the more optimistic view of homecare interactions presented by Baltes (1988), which contended that independent behaviors are more often positively reinforced in home settings. One would think that the home environment, because it affords a more individualized form of care in a familiar environment, would offer a context in which elders are encouraged to use their full potential. Unfortunately, this hardly seems to be the case. Furthermore, the finding that
homecare providers consistently engage in dependent-supportive behaviors -- *regardless of what the elder is currently doing* -- might shake one's faith in the dependency support script. If both dependent and independent behaviors are met with the same care and attention, then the pattern of differential reinforcement which is necessary to uphold the model of learned dependency no longer holds. These findings thus indicate that in home settings, the model of learned helplessness might be a more apt description of the caregiving process.

### 2.1 Summary

Taken together, these studies have documented a very important phenomenon with meticulous precision. The methods used to analyze the results have been well-chosen, enabling description and hypothesis-testing at different levels of analysis (behavioral profiles, individual behavior chains) and across many different contexts. Based upon this body of work, the existence of the dependency support script cannot be refuted. However, there are two caveats that must be mentioned with regards to this work, actually extenuations of critiques originally put forward by M. Baltes herself:

* a) *Regarding dependent behavior*

Ignoring dependent behavior is simply not an option in caregiving contexts. This is reflected in the data, which shows that in caregiving contexts, "no response" to dependent behavior never occurred (e.g., see figures in Baltes, 1988; Baltes & Horgas, 1987). When a theoretical outcome *never* occurs, the premises upon which the hypothesis is based may be flawed. Although it is theoretically possible for dependent behavior to be ignored, the practical constraints of the situation -- residents *must* be clothed and fed -- renders the outcome highly unlikely. Because certain behavior chains are precluded, the analysis isn't perfectly fair. Indeed, the findings on dependent behavior chains can be taken to reflect the simple fact that when an elder in a caregiving context expresses a need, she almost always gets help. The crucial question, however, is whether such needs are *legitimate*, i.e., is the elder making a genuine effort, or is she perhaps feigning incompetence in order to procure attention? In short, one must rule whether the behavior in question reflects *overdependency* upon staff.
b) *Regarding independent behavior*

One might further object, as often stressed by M. Baltes, that no response is often the socially appropriate norm for those observing independent self-care. But the argument can be taken further: no response is not only normal, but it can also foster independence. As any good parent knows, "ignoring" a child's efforts to accomplish a task can reinforce her sense of autonomy. Directing one's attention elsewhere clearly communicates, "You can do it on your own -- you don't need me to help." Similarly, leaving the room, or occupying oneself with some other task, effectively prevents the caregiver from getting drawn into the self-care activity. It literally forces the elder to make some attempt to accomplish the self-care activity alone, or to explicitly ring for help (if that is what required). Such nonverbal behavior, when viewed within context, might have been intentionally carried out by the caregiving staff in an attempt to foster autonomy.

In fact, positive reinforcement (e.g., a pat on the back, a complimentary remark) only appears to be appropriate when the self-care activity is out of the ordinary, e.g., if a resident who never dresses herself alone arrives at breakfast fully clothed. Constant praise, especially concerning mundane activities, can easily become patronizing. Hence, the low rates of reinforcement observed may have resulted from caregivers prudent use of verbal praise.

Incidentally, the *one* behavior chain that always shows the staff undermining the care recipient's autonomy is an independent self-care behavior followed by dependent supportive behavior. As long as the elder is not engaging in an activity that will lead to self-injury or perhaps, social embarrassment, autonomy should be supported. The results indicate, however, that the extinction of independent self-care occurs with unsettling regularity in homecare contexts (Baltes & Wahl, 1992). A second piece of evidence would be if dependent self-care behaviors are *almost never* followed by independent supportive behaviors. (That is, dependent persons are very seldom prompted to try things on their own.) This pattern of dysfunctional interaction appears to be more prevalent in institutions (e.g., Baltes & Horgas, 1997).

In sum, the studies presented here have convincingly demonstrated the presence of a dependency support script: the social partners in caregiving contexts routinely reward dependent behavior and largely ignore or exterminate independent behavior. Nonetheless,
there are problems with interpreting this script as a dysfunctional pattern of reinforcement. Giving support to dependent people is sometimes warranted. "Ignoring" independent people might often be with the intent to foster autonomy. These reservations certainly do not overturn the findings reported, but they do present them in a rather different light.

3. The Dependency Support Script: Why Do Caregivers Reinforce Dependency?

The aforementioned studies strongly attest that caregivers reinforce dependency among the elderly. The next logical question is: Why do they do so?

One of the most obvious reasons is security. Institutions naturally have a financial aversion to risk: it is better to have half a dozen residents in wheelchairs than to have one resident fall down (Zarit, 1997). Preventable injury that occurs on the nursing home premises carries with it higher insurance costs, threats of legal action, as well as negative publicity. It is important to realize that security concerns are shared by the nursing home administration and individual nursing aides alike, neither of whom want to be held responsible for accidents, mishaps, or oversights. Risk aversion thus serves to create overly restrictive institutional policies as well as overly protective care regimens for individual nursing home residents. Of course, more security entails less autonomy (Parmalee & Lawton, 1990). Therefore, the resident ends up footing the bill for these measures, paid in the form of lost autonomy.

Another very plausible reason for inducing dependency involves the task demands of caregiving. The fundamentals of daily care, e.g., ensuring that every resident on the ward has been washed, dressed, and fed, can often be accomplished more quickly and efficiently when the nurse takes an active role (Wahl, 1991a). Without doubt, the focus on efficiency and essentials can be traced back to the abysmal working conditions in some residential homes and skilled nursing facilities, as well as the low pay and status accorded to the caregiving profession. One should note, however, that even in top-notch institutions, caregiving is likely to involve strenuous lifting, and the management of disoriented, depressive, and aggressive persons (Weyerer & Zimber, 2000), all of which may lead the caregiver to do perfunctory work. Day-to-day stress puts a premium on organization and efficiency, and job performance is more likely to focus on what has been accomplished rather than how it has been accomplished (Miller, 1985). It is no wonder that many nursing homes still cling to a custodial model of care, and run residents through a kind of assembly line on a daily basis.
These insights have served to create interventions based on job redesign and nursing management (Burgio & Burgio, 1990; Smyer, Brannon & Cohn, 1992).

Another cogent reason why caregivers reinforce dependency among the elderly concerns age-related stereotypes (Wahl, 1991a). Nurses aides provide between 80-90% of the care received by elders in institutions, but many are young, untrained and may thus have naive conceptions of aging and developmental loss (Burgio & Burgio, 1990). Standards vary between countries, of course. In Germany, at least 50% of the staff in skilled nursing facilities must, by law, have completed vocational training, but what precisely this training entails varies between each of the 16 member states (Dritter Altenbericht, 2001). Although training can improve the quality of care, studies have shown that even trained nursing staff may adhere to common stereotypes about aging (Williams, Lusk & Kilne, 1986).

Ironically, medical training cuts both ways -- it affords the individual insight into the biological bases of behavior, but it can also lead to the medicalization of problems, and thus reinforce the notion of inevitable biological decline with age. Moreover, those who have been taught how to provide physical assistance to the disabled elder are eager to use their skills, and tend to jump in where they are not wanted (Lidz & Arnold, 1995). Thus, although caregivers may truly intend to promote autonomy in their charges, they may lose sight of doing so in the "heat" of the interaction (Wahl, 1991b).

These considerations, taken together, have formed the basis for an intervention program to reduce behavioral dependency among elders (see below).

4. Ecological Interventions

Having identified the contingent and largely dysfunctional reinforcement of dependency among the elderly in long-term care, the Baltes research group set their sights on correcting the problem. An ecological intervention, based upon the premise that caregiver's adopt the traditional helper's role, was developed (Baltes, Neumann & Zank, 1994). The intervention was then implemented and tested in three long-term care institutions, involving a total of 27 staff members and 106 residents aged 68 to 91 years. The training program was impressive, comprising 8 two-hour sessions of classroom instruction on communication skills, the etiology of depression, and behavior modification principles, as well as many other topics.
germane to dependency issues in old age. Behavior modification programs tailored to individual residents were then planned, implemented, and evaluated in four further sessions.

The ecological intervention was largely successful in attaining its goals. In particular, the behavior profiles of staff members perfectly mirrored expectations. Dependent-supportive behavior decreased and independent-supportive behavior increased over the pre-post intervention interval. Clearly then, the intervention was successful in engaging the cooperation of the staff and teaching them to support autonomy in the persons under their care.

The effect of the intervention on resident behavior, as might be expected, was somewhat more modest. There was a significant increase in independent self-care behaviors, but dependent self-care behaviors showed only slight (i.e., nonsignificant) decline. However, because the intervention mainly targeted staff (and not individual residents), one cannot expect the impact on the residents to be as strong and as immediate. The fact that any change at all was noted, is in itself, might be construed as a major victory.

The results regarding interaction patterns were somewhat equivocal. Again, the research group examined resident behavior (dependent vs. independent) followed by staff behavior (dependent-supportive vs. independent-supportive), or four different behavioral chains. Although the authors are inclined to see improvement in three of the four behavioral chains after training (also evident in Baltes & Horgas, 1997), some of these gains were hardly appreciable or could be traced back to differences that already existed between experimental and control groups at pretest. Training did seem to teach one particular form of restraint, however. The frequency of independent behavior by the resident followed by dependent-supportive behavior by the staff member clearly dropped after intervention. This finding suggests that trained staff were better at letting the care recipient continue with independent self-care activities; they were less inclined to intervene and offer help when care recipients were already taking care of themselves. A partial success perhaps, but, as argued earlier, this particular chain points to a pattern of dependency that is almost certainly dysfunctional, one which an intervention of this kind is precisely intended to address.

Other studies have also shown how behavior management can be employed to improve the autonomy of elderly care recipients -- albeit, with somewhat less success. Brandriet, (1995)
describes an intervention program for promoting empathy and independence-skills training among caregivers. The sample was small (23 subjects), probably due to the extensive amount of effort required in coordinating a project of this kind and training the personnel. The caregivers receiving training did, in fact, demonstrate statistically significant changes (more empathy, more support of independence in elderly care recipients). Unfortunately, the improvements appear to be an artefact that resulted from the control group (i.e., those caregivers who did not receive training) becoming worse in terms of reinforcing independent and exterminating dependent behavior. Staff in the experimental condition did not show one jot of improvement in promoting autonomy among the elders in their care.

Blair (1995) examined the effectiveness of behavior management and mutual goal setting, mutual goal setting alone, and routine nursing care in reducing physical dependency. 79 elderly care recipients and 53 members of the nursing staff participated. Here, the intervention was clearly effective in enhancing autonomy. Patients in the combined condition (behavior management and mutual goal setting) improved the most, moving from a state of complete dependency to accomplishing ADLs with limited or even no assistance whatsoever. Patients in the mutual goal setting condition, also became significantly more autonomous, whereas patients in the control condition performed worst of all (little better than baseline). Furthermore, the effects of the intervention in the combined condition persisted over a 22-week interval. These later studies confirm that a training program can be an effective means of reducing dependency among elderly care recipients.

4.1 Summary

There can be little doubt that nursing staff profit from continued training, including instruction in the use of behavior modification. The study by Baltes, Neumann and Zank (1994) has shown, in the clearest terms, that ecological interventions can reduce behavioral dependency. This demonstrates the causality of the social reinforcement in producing dependency and brings to a fitting close a great number of investigations on elder dependency based on this paradigm.

Before proceeding further, it should be mentioned that the gains described above were obtained at considerable expense. Interventions are by no means easy to implement and perhaps even harder to follow through on. Baltes, Neumann and Zank (1994) appear to strike
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a chord when they cite "exhaustion: exhaustion of finances, of residents, of staff members, of observers ... and not the least of the authors (p. 185)" as the principal reason for giving up further investigations into this area. Similar observations were made in other studies. For example, caregivers mentioned lack of time (Blair, 1995) and teamwork as major problems to implementation of this training program. Lack of teamwork refers to the fact that progress is frequently undermined by others (Brandiet, 1995). The staff participating in this study also stated that the effects of the training would be short-lived without refresher courses and reminders. Thus, interventions to reduce dependency among elders must be viewed as a qualified success -- they are difficult to implement, require further monitoring, and even then, the gains in autonomy are likely to be short-lived.

5. Critique

The literature reviewed above has successfully demonstrated the presence of a dependency support script. Further steps have illustrated the factors underlying dependency: stereotypical beliefs about the elderly, adherence to a medical or custodial model of care, and the contingent reinforcement of dependent behavior itself. Finally, an intervention based upon these insights has convincingly demonstrated that social reinforcement can be put into the service of autonomy; the very forces that shaped dependency among the elderly can be used to exterminate it. Although the paradigm has performed admirably, two points of critique may be ventured.

1) Previous research focuses on the social environment, i.e., does not fully account for the person in the person-environment equation. Differential characteristics might explain why some persons are more prone to dependency than others.

An interesting observation is that implementing behavior management programs requires confidence and assertiveness. Some elders react with anger when told "No, you can do it" (Brandiet, 1995). Resistance from certain care recipients clearly indicates that mitigating factors in the caregiving context have not been accounted for. One of the most important, I would argue, is the elderly individual's attitude toward dependency. Does this person actively strive towards autonomy? Is he or she comfortable accepting help? Does he or she expect to be challenged, to be pushed toward their limits, or does he or she expect to be assisted?
In this sense, Wahl (1991b) took a great step forward when he examined the elderly person's goals, value orientations, and perceptions of control in the caregiving context. In general, the study showed that the elderly in caregiving contexts greatly value their autonomy and strive to increase it. The caregivers' goals were precisely opposite-aligned, with emphasis on providing help. An astounding 13.5% of the comments made by the elderly individuals interviewed touch upon their nonuse of existing competence. In other words, in a very significant portion of the transcribed statements, the care recipients describe receiving help with tasks they felt they could do on their own. Why didn't these persons stand up and assert themselves? Why didn't they say, "Excuse me, but I can do this alone?" One reason, surely, is that the helper gave them little choice, i.e., pressured them into accepting help. Another, however, might be that the elderly individual was comfortable accepting assistance and happy to comply with the routine.

What evidence supports this notion? First of all, elderly care recipients with high self-efficacy showed more independent behavior (Wahl, 1991b), clearly demonstrating that an individual difference variable might have a mediating influence on dependency behavior. Second, the elderly who have become very dependent upon others are less interested in control. Jirovec and Maxwell (1993) examined dependency, actual level of control, and desire for control in 107 caregiving relationships. Perceptions of actual control, as well as desire for control, were inversely related to functional ability. In explanation of this finding, the authors contend that "most residents, if asked, express a desire to maintain control in their lives ... [but] ... they may restructure their desires in order to be compatible with what they perceive as their abilities (p. 13)."

The aforementioned studies offer tantalizing evidence that dependency in caregiving contexts is mediated by individual differences, i.e., control beliefs, or perhaps even desire for control. It would therefore be interesting to explore whether other individual differences, such as aspects of the person's personality, and in particular, dependency-related constructs, are generally elevated among elderly care recipients, and whether they too have a differential effect on dependent behavior. The explanation of dependency in later life thus requires a consideration of "interindividual differences in preferences, personality characteristics, values and the like (Baltes, Wahl and Reichert, 1991; p. 328)."
Figures 3a and 3b illustrate supply-side and demand-side explanations of behavioral dependency.

Figure 3a. Supply-Side Explanation of Dysfunctional Behavior in Caregiving Contexts.
The social environment paradigm (Figure 3a) essentially lays the problem of dependency at the feet of the nursing staff. By selectively responding to the care recipient's dependent behavior, dependency is reinforced. However, the problem does not arise from anything the elderly individual says or does; hence, the term "overcompensation" (e.g., Baltes, Wahl & Reichert, 1991) is somewhat misplaced. In these situations, it appears more appropriate to speak of an overprotective environment, or oversupport in the caregiving context.

An alternative, person-based approach to dependency problems is presented in Figure 3b. Accordingly, dependent behavior reflects the habitual behaviors that arise from the individual's psychological character, including long-standing traits and drives, as well as the needs and motives that might fluctuate from day to day or year to year. When the individual seems to have pronounced needs for care and attention, i.e., more than one would "normally" expect given his or her physical condition, then it would seem reasonable to speak of overdependency.
One must add, however, that the individual differences paradigm does not necessarily view dependency as an expression of a problem, but rather, a product of one's natural disposition to solicit help, to enjoy social contact, or to conform to social expectations. Obviously, such dispositions carry consequences and can be dysfunctional in certain situations. Since the majority of personality dimensions are merely descriptive, and not evaluative in nature, however, framing dependency in such terms takes much of the sting out of being dependent or behaving in a dependent fashion.

For these reasons, a comprehensive understanding of behavioral dependency among the elderly requires two complementary approaches. The environment-based approach to dependency, which focus on behavioral management, can be thought of as supply-side explanation. The theoretical utility of this paradigm has been solidly established in the series of studies reviewed above. Conversely, person-based approaches, such as those which examine differential characteristics, offer demand-side explanations of behavioral dependency. To date, little research has focused on how personality characteristics might influence dependent behaviors in the caregiving context.

2) **Previous research focuses on selfcare activities, and thus defines dependency in narrow terms. Dependency, however, encompasses many different kinds of phenomena.**

The social reinforcement paradigm has focused on observable behaviors. It is no coincidence that adherents of this paradigm have therefore defined their object of study as "behavioral" dependency. Baltes (1988) rightly claims that the approach might be legitimately criticized on the grounds that it "buys accuracy at the cost of complexity (p. 303)." However, she goes on to conclude that "emotional dependence" must therefore be excluded from analysis. Emotional bonding, it will be noted, can be easily defined in terms of behavior. One of the classic features of insecure attachment, for example, is recurrent proximity-seeking behavior (Bowlby, 1969). There is thus no theoretical reason why different forms of dependency could not serve equally well as objects of investigation.

There is also no reason to limit one's focus to selfcare activities. Indeed, the restriction of one's perspective to essential activities such as eating and bathing may be the consequence of the preoccupation with autonomy that is so prevalent in contemporary Western culture. Certainly, there are other "essentials" in life beyond being cleaned and fed. And certainly,
caregivers might assume a larger role than administering to the older individual's physical needs.

Some might counter that caregivers are hired to fulfill contractual obligations just like any other professional. Elders pay for a service, and no personal relationship with the caregiver is necessary, warranted -- or indeed appropriate. A little reflection on the nature of the caregiver's profession quickly dispels such objections. Caregivers are healthcare workers, and as such, enjoy a special relationship with their clients. To put it bluntly: the relationship to one's therapist is not the same as the relationship to one's butcher. Moreover, caregivers engage in intimate activities with their clients. What could be more conducive to bonding than feeding and washing another human-being? In the home context, caregivers share in the elder's innermost life; they can see and touch their client's most cherished possessions and become familiar with their private lives in a way that few others can. Caregivers generally remain on site for hours, and may remain in service to the same individual for years. It is only natural for the boundaries between professional and personal to blur. Caregivers to the homebound elderly frequently go beyond their contractual obligations (e.g., work extra hours without pay) and freely offer their companionship. Moreover, older care recipients are more likely to regard them as family (Eustis & Fisher, 1991).

In short, professional caregivers do more than just assist with bathing and dressing. They are important social partners, especially for those who, due to their advanced age, are bereft of friends and family. For these reasons, it appears essential for the present analysis of dependency to go beyond selfcare activities and explore the many different ways elders become dependent upon their caregivers.