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COMPETENCY IN EVERYDAY PROBLEM SOLVING IN OLD AGE

What the elderly fear most, often even more than dying, is the loss of independence - the inability to care for oneself, to manage one's affairs and to live independently in the community. The elderly's competence to live independently is a concern not only of the old, but as many of us know personally is a major issue for adult children who are involved in helping their parents make life choices. The competence of the old to care for themselves and manage their own affairs will become an increasing society concern in the first half of the 21 century as the huge Baby Boomer cohorts begin to enter old age. By 2030 every 5th American will be over the age of 65 (Siegel & Taeuber, 1936). Baby Boomers will swell the ranks of those over 85 years from 9 million in 2030 to ^{an} estimated 16 million in 2050. Everyday competence in old age is becoming an area of growing interest and debate not only for those of us in the social sciences ^{work ed} involving in research or services to the elderly, but is also of concern to health care professionals whose ⁷¹ cliental are increasingly ~~becoming dominated~~ ^{It is} by the old, and to the legal profession who are being called upon to engage in the Solomon-like decision that must be made in guardianship or conservatorship cases ^{that} involves weighing the legal rights and desires of the elderly for autonomy and independence versus beneficence, society's obligation to protect and care for the incompetent or disabled.

For the past decade or so there has been a new specialty in the study of cognitive aging that has focused on everyday problem solving or practical intelligence (Poon, Rubin & Wilson, 1989; Puckett & Reese, 1993; Sinnott, 1989). Many of the leaders in this field are in this audience (Denise Parks, Lennie Poon). Much of my recent research has been in this area (Willis, 1991; Willis & Marsiske, 1990; Willis & Schaie, 1993). This presentation will focus on some of the major issues and questions in this field and present some research findings from my lab. In addition, we will attempt to relate the psychological literature on cognitive competence to issues regarding legal decisions and judgments concerning the capability of older

adults to care for themselves and to manage their affairs (Appelbaum & Grisso, 1988; Kapp, 1992; Parry, 1985).

I must begin by acknowledging the many students and staff members in my research lab who have contributed significantly to the research findings to be presented. In addition, it is important to recognize the many elderly subjects who have made this research possible.

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Defining Competence

We must first begin with the definition of the term competence as it has been used in psychological theory and research and in the law. Table 1 presents several definitions from both legal and psychological perspectives. Note that psychological definitions focus on competence while legal definitions, in contrast, focus on incapacity or impairment. There are several areas of similarities between psychological and legal definitions. First, there is an emphasis on *cognition* and on *decision-making* capacity, in particular. Second, the focus is on *functional tasks* or applied cognition - the ability to make decisions and to carry out activities essential for daily living. Third, the *context* in which competence is of concern is the naturalistic or *everyday environment* of the individual, not the research laboratory or even the court room, in most instances.

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Insert Table 1 about here

Competence: Some Common Characteristics

A review of the applied cognitive aging literature and of the legal literature suggests that there are some common components or characteristics in the use of the term competence. These characteristics ~~or components~~ applied to quite diverse competencies, such as competency to stand trial, competency to manage one's property and financial affairs, and competency to engage in health care and decision making. We will focus on five common characteristics of

competencies have been identified in the literature (Altman, Parmelee & Smyer, 1992; Anderer, 1990, Baltes, Mayr, Borchelt, Maas & Wilms, 1993; Grisso, 1986; Kapp, 1992; Willis, 1991; Willis & Schaie, 1993).

First, there has been a focus on the elderly's **functional abilities**: that which a person knows, understands, believes, or can do. slide
Competent

What functional abilities are relevant in order for an older adult to function competently at a given point in time, is defined by the **general environmental context**. The critical functional abilities for an older adult do not exist in limbo, but are circumscribed by the sociocultural context. define

For those of us interested in individual differences, a major focus of study has been on **antecedents** or **correlates** of functional abilities. What characteristics of the individual are related to level of functional ability? In contrast, historically, judgements of legal incompetence have focused on a statement of **cause** - a disorder or disability that was considered to be the basis for the elderly's functional deficits (Anderer, 1990; Sales, Powell & Van Duizend, 1982). Many legal statutes continue to include causal inferences in their definitions of competence.

A fourth component of competence of concern primarily in the psychological literature has been that of **efficacy** or **locus of control**. What are the attitudes and beliefs of the elderly regarding their ability to live independently; to what factors do they ascribe control? elderly

Fifth, everyday competence is a matter of **person-environment fit**. That is whether or not an older adult can function independent is an interaction of the functional abilities of the individual and the demands of the immediate environment. The congruency or incongruency between a person's level of functional ability and the demands of the older adult's environment must be determined (Lawton, 1982).

There are two other components of competence that clinical psychologists and health these is the
legal

professionals are often involved in and that I believe need further study by social scientists but that will not be discussed in this presentation. Assessments of competence are often **judgmental** in that they require a profession, ^{or} moral and sometimes legal evaluation that there is sufficient incongruency between a person's abilities and contextual demands to warrant a finding of incompetence. In such cases, judgments of competency are **dispositional** in that they may involve depriving the older adult of fundamental rights, such as the care of oneself and the maintenance of one's property.

Functional Abilities or Capacities

The central question in guardianship and conservatorship cases is whether the individual's level of functional abilities are sufficient for the contextual demands experienced by an elderly individual.

Domains of functional competence. A major question for professionals from many disciplines who are involved with the elderly is to define those domains of functional competence that are of particular relevance for a specific older person. Most adults are neither totally competent or incompetent with regard to tasks required for independent living in our society. Our level of competence varies within and across task domains. Even until fairly late in a dementing illness, an older person may remain competent to perform very selected tasks of daily living (Vitaliano, Breen, Albert, Russo & Prinz, 1984). Moreover, there is some evidence that cognitive functioning declines in a progressive manner with deficits being first exhibited in complex cognitive tasks such as those involving inductive reasoning or decision making in novel, unfamiliar situations (Ashford, Hus, Becker, Kuman, & Bekian, 1986).

Recognition of the fact that competence is not an all or nothing phenomenon is reflected in the recent trend ⁱⁿ legal procedures toward choosing the least restrictive alternative in guardianship judgements (Parry, 1985). Guardians are appointed as surrogate decision-makers in only selected domains of activity, such as the management of financial affairs.

Interestingly, psychologists and legal professionals have focused on two very broad domains of functional competence: 1) Caring for self and 2) Managing one's property. The Uniform Probate Code (UPC, 1989) distinguishes between proceedings regarding care of the person (guardianship) and those related to property (Conservatorship).

slide -
ADL
IADL

Those in the social sciences have identified a set of competencies associated with each of the broad domains (Fillenbaum, 1987a,b,c; Kane & Kane, 1981) : 1) Activities of Daily Living (commonly known as ADLs) that focus primarily on self care, including feeding, bathing, toileting, and basic mobility (Katz, Ford, Moskowitz et al., 1963); and 2) Instrumental Activities of Daily Living (commonly known as IADLs; Fillenbaum, 1987a,b). The IADLs are viewed as more complex but essential abilities required in order to live independently in our society. Seven IADL activity domains (see Table 2) are commonly cited: Managing medications, Shopping for necessities, Managing one's finances, Using transportation, Using the telephone, Maintaining one's household (housekeeping), and Meal preparation and nutrition (Fillenbaum, 1985; Lawton & Brody, 1969). In terms of the distinction made in the Uniform Probate Code, caring for self may include the IADL domains of managing medication, meal preparation and nutrition, using transportation, and using the phone. Managing property includes the IADL domains of maintaining one's household, shopping for necessities, and managing one's finances.

Insert Table 2 about here

The IADLs have been of primary interest both to social scientists studying the elderly's ability to live independently and in legal guardianship cases. The elderly person may be able to engage in basic self care activities and still have serious deficiencies in making decisions regarding independent living and in managing property. In cases where the individual is lacking in the most basic self care functions (ADLs), the deficiencies are often sufficiently obvious and

serious that institutionalization is required.

Functional Abilities: The Role of Environmental Context

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Environment
Context

The elderly do not live in a vacuum and thus competence cannot be considered without taking into account the environment in which the elderly function (Lawton, 1982; 1987). The environment context is critical in defining which specific functional abilities are most salient in order to live independently or to be judged legally competent.

The gerontological literature (Lawton, 1987) has defined the sociocultural context to include both the physical and the social environment in which the individual must function competently in order to maintain their independence. For example, functional abilities associated with independent living would be expected to vary whether the older adult lived in an urban versus rural environment and or in inner city or suburbia. This distinction was made very real to us when we began to utilize the Lawton & Brody (1969) functional assessment measure developed at the Philadelphia Geriatric Center in inner city Philadelphia. When we asked our farm women in rural central Pennsylvania about their ability to use mass transportation, one woman gently reminded us that she would have to drive 20 miles to catch a bus, and several hundred miles to use a subway system!

Likewise, the social environment plays a critical role in determining social roles and the functional abilities associated with these roles. For example, several of the IADL domains (e.g., housekeeping, meal preparation, shopping) deal with activities that traditional gender roles might define as women's work. Although some IADL scales utilize the same items for older men and women (Lawton & Brody, 1969), gender differences in the elderly's perception of competence are widely reported in the epidemiological literature (Fillenbaum, 1985).

The sociocultural context is dynamic, ever changing, and hence the requisite functional abilities would be expected to change with the historical context. For example, use of computers in some form (e.g., ATM machines, microwaves, VCRs, programmable phones) has

become quite pervasive.

An important question is what criteria are to be used in determining the functional abilities considered most salient in a given context. The professionals and/or social service providers that work directly with the elderly are on the front line and often are involved in making decisions (often by default) regarding competency and functional abilities. For example, it is often service providers such as senior citizen directors, rehabilitation specialists, and the managers of senior citizen housing that determine whether an older adult is competent to live independently. There has been relatively little research on whether providers of different types of social services agree on which of the IADLs are most critical for independent living (Loeb, 1983).

As part of our program of research, we asked three different groups of providers working with the elderly (occupational therapists, managers of housing for the elderly, senior citizen center directors) and the elderly themselves to rate 75 tasks related to daily living according to how essential competence on each task would be for independent living (Diehl & Willis, 1991). The tasks represented five IADL domains. There was considerable consensus among the different groups of service providers and the elderly regarding the relative importance of IADL domains. Management of finances and taking of medications were rated as the two most important domains by all three service provider groups and also by older adults. Shopping for necessities was rated as the least essential functional ability for independent living by all groups.

Penn State research on everyday competence. In our research at Penn State we have focused on the cognitive demands involved in IADL type activities, while acknowledging that functional competence is multi-dimensional involving physical health and social knowledge and skills as well as cognitive ability. We have been involved in studying older adults ability to solve tasks of daily living that involve printed material associated with each of the IADL

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Ratings
of IADL

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cognitive
tasks

domains. Older adults are presented with 42 stimuli - 6 stimuli for each of the 7 IADL domain.^S They are asked to solve 2 problems related to each stimuli. All stimuli are actual materials that the elderly might encounter in their daily lives, rather than abstract versions created in the lab. For example, the subject is shown an income tax return and asked which two deductions may be used to reduce the total earned income. A telephone discount time chart is shown and the adult is asked to determine which rates apply on a given day and time period. A nutrition chart from a package of cereal is shown and the subject is asked to determine how many calories per serving ^{when using} for whole versus skim milk.

slide 3
w/ stimuli
1) Phone
time
2) Tax
3) Bus
Schedule
4) Prescription
Drug

Our measure of everyday problem solving has been found to be related significantly to several other indicators of functional competence. These include: 1) Older adults self ratings of ability to function without assistance in each IADL domain; 2) To spousal ratings of subjects competence in IADL s; 3) To other measures of everyday problem solving included in the literature; and 4) To an observational measure of older adults ability to perform tasks of daily living in their own home (Dietl description)

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Functional Competence and Incompetence: Correlates, Antecedents, and Causes

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Whereas in the legal domain the primary focus has been on determination of incompetence and hence on the cause of the incompetence, in the psychological literature, the focus has been on competence and hence on the individual difference factors associated with level of competence. Until recent times, ^{40%} ~~most states~~ legal statutes ^{in most states} equated incompetency with a mental disease or disorder (Parry, 1985; Sales et al., 1982; Sabatino, this volume). Mental disorders were described in vague terms (lunacy, idleness, madness, senility) that lack scientific meaning in today's parlance. In some cases, advanced age has and continues to be included in state statutes as an admissible cause of incompetence.

More recently, simply the diagnosis of a mental disorder is insufficient support for a judgment of incompetence. The critical criterion is evidence of functional impairment in

domains considered essential for care of self and property. For many states, a mental disorder must still be identified, but the emphasis is on demonstration that a disorder offers a causal explanation for the functional deficits observed (Nolan, 1984).

Education, mental disorders and competency. It might be argued that the presence of a mental disorder in combination with functional deficits should satisfy the legal question of incompetency. However, the functional deficit may have predated the organic condition, highlighting the importance of determining the premorbid functional competency of the older adult. Hence, there is the need to consider the moderating effect of individual difference variables even when making judgements with regard to incompetence.

Educational level is a salient individual difference variable that has been recognized to be significantly related to cognitive functioning throughout the life course. Recently, the influence of education on the diagnosis and progression of dementias, such as Alzheimer's disease have become of increasing concern (Uhlmann & Larson, 1991; Wiederholt, Cahn, Butters et al., 1993). The important issue for those involved in guardianship cases is the question of whether functional deficits are attributable primarily to low educational level, to a mental disorder, or to a combination of these factors.

Figure 3 (top graph) presents the proportion of everyday problems solved correctly on our measure for a nondemented group of elderly, stratified by age and educational level. Note that subjects with less than 12 years of education are functioning at a significantly lower level than those with average or higher levels of education. The old-old (75+ years) with 1-11 years of education are particularly disadvantaged and may be said to be at cognitive risk, although having no organic impairment.

Insert Figure 3 about here

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Review of...

The bottom graph in Figure 3 presents data on the same task for community-dwelling Alzheimer's patients. The combination of low levels of education plus an organic impairment results in serious deficits in functioning. However, given the previous data (upper graph) on the low level of performance of the nondemented old-old with low levels of education, it is likely that these low-educated Alzheimer's patients were functioning quite marginally even prior to diagnosis of an organic impairment. Given the significant relationship between education and almost all measures of cognitive function, the increased risk of misdiagnosis for a dementia in low educated, low SES elderly should be a major concern in competency judgements (Wilson, Grant, Witsey & Kerridge, 1973). On the other hand, Alzheimer's patients with high level of education may be competent to engage in some forms of ~~decision-making~~ ^{everyday tasks} early in the disease progression.

We suggest that it is important for ~~those involved in making decisions regarding~~ functional competence in the elderly to consider ~~the emphasis is on the~~ cognitively challenged elderly, not solely the cognitively impaired elderly. ^{in decision to judge} The terms *cognitive impairment* or *disability* often suggests a disorder that is pathological in etiology and is considered irreversible. However, there are many elderly who are cognitively challenged by the tasks of daily living due to socioeconomic and/or cultural disadvantages throughout life, although they suffer from no diagnosed disorder. Given recent rapid technological advances and positive cohort trends in education, today's elderly are particularly likely to be challenged as a function of sociocultural change (Pifer & Bronte, 1986). The fastest growing segment of our population are the oldest old - those in their 80s and 90s (Suzman & Riley, 1985; U. S. Senate Special Committee on Aging, 1987-88). They are most likely vulnerable to the effects of rapid sociocultural change, as well as to normative nonpathological age-related change in intellectual functioning (Schaie, 1983; 1990). If the judgments of legal incompetence are now to focus largely on functional abilities, then broader consideration must be given to elderly who are

cognitively challenged for reasons other than mental disorders or pathologies.

Nondemented elderly, individual differences, and functional competence. Fortunately most elderly do not suffer from dementing illness that impact functional ability. Yet, there remain wide individual differences in functional competence among the normal elderly. What antecedent factors are associated with variability in ability to perform tasks of daily living? We begin with examining age differences and age-related change in everyday competence.

The top half of Figure x shows age differences in performance on our measure of everyday problem solving. Age differences between the young-old and old-old are shown at all educational levels, but the age differences are most notable for those with the lowest educational levels. Adults with lower levels of education have greater difficulty, on average, in everyday decision making throughout their adult lives. These low educated adults become particularly vulnerable in old age when their level of functioning becomes even further diminished by age-related change in performance. The relevance of education in assessment of everyday decision making is very salient in old age, since today's cohorts of elderly have a lower mean level of education than the total adult population. The median school years completed for elderly who are 60-74 years is 12 years, while those 75 years and older have completed only 11 years of schooling, on average (U.S. Census, 1989).

Figure X presents longitudinal findings regarding the pattern of change for elderly with no known mental disorder; patterns of age-related change are shown for elderly with 12 or less years of education and for those with more than 12 years. Note that at each chronological age low educated elderly are functioning at a lower level than those with above average levels of education. While age-related decline in young-old age (60-75 years) is modest, the rate of average decline increases in old-old age (75+ years). Our data suggest that educationally disadvantaged elderly in very old age (in their 80s or 90s) are increasingly likely to need assistance in everyday decision making, even though they do not suffer from a specific mental

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disorder.

Components of decision making. In previous work (Willis & Schaie, 1993) we have suggested that at least seven individual difference components are involved in making decisions related to tasks of daily living (Figure 1). There is a hierarchical relationship among components in this framework. Basic mental abilities and domain-specific knowledge bases are necessary components in decision making, but are not sufficient for generation of adequate problem solutions; there must also be consideration of the elderly's perception of the social and physical environment associated with the problem or task and the individual's beliefs and preferences regarding alternative solutions.

5/22
- Model

Insert Figure 1 about here

a. Mental abilities. Our prior research has indicated that many of the basic abilities (e.g., verbal, reasoning, memory) studied by psychologists in their laboratories are required in solving tasks associated with daily living. However, tasks of daily living are often very complex and thus involve more than one mental ability. (Willis, 1991; Willis, Jay, Marsiske, & Diehl, 1992; Willis & Schaie, 1986). For example, comparing alternative medigap health insurance plans was found to involve both verbal ability and inductive reasoning. While verbal ability is required to read the benefits chart, making comparisons among different insurance plans involves inductive reasoning. The individual must determine the similarities and differences among the insurance plans and determine which set of services fits his/her needs. Different constellations of mental abilities and processes will be required for various practical problems (Willis, 1991; Willis et al., 1992). Spatial orientation and verbal ability will be more important for reading a map, whereas inductive reasoning and verbal ability will be more salient for interpreting a medication label.

In our own work we have assumed a hierarchical relationship between the basic intellectual abilities that have been traditionally studied by psychologists and the functional tasks associated with daily living that are the concern in judgments of legal competency (Willis & Marsiske, 1990; Willis & Schaie, 1986, 1993). As was illustrated with the decision making model discussed above (Figure 1), we assume that basic mental processes are necessary but not sufficient determinants of functional competence. Given that every day tasks are complex we assumed that performance on a given task requires a unique constellation of mental abilities.

The question for us has how well could we predict older adults performance on critical everyday tasks if we had information on their performance on a number of mental ability measures. We assessed functional abilities by examining older adults performance on tasks related to each of the IADL domains discussed previously (see Table 2). In our first study we examined whether intellectual abilities assessed at one point in time could predict older adults performance on functional abilities seven years later (Willis et al., 1992). Approximately 67% of the individual differences in functional abilities could be accounted for by older adults performance on intellectual processes seven years previously (Willis et al., 1992). We have replicated these findings in subsequent research studies (Diehl, 1991; Willis & Marsiske, 1990).

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Research on the relationship between basic mental processes and functional abilities has several important implications for making judgements regarding legal competence. First, findings from this research provide information on the specific types of mental abilities that underlie functional competence. Second prior longitudinal research on these mental abilities (Schaie, 1990) provides the best predictions available regarding what to expect in the future - what trajectory of functioning is to be expected given current level of performance. Third, there has been over a decade of research on the modifiability of these basic abilities and on the

individual difference variables associated with remediation (Schaie & Willis, 1986; Willis, 1987). Findings from this research provide important information on what types of interventions might be profitable and with what types of individuals.

b. Domain-specific knowledge. Decision making also involves specialized knowledge related to the problem at hand. Whereas the research literature on expertise has shown relationships between a single, specialized knowledge domain and competence in a skill or profession (Ceci & Liker, 1986; Salthouse, 1990), solutions for many everyday types of tasks will require accessing several different knowledge domains (Christie, 1984). In considering medigap insurance plans, for example, the problem solver needs to have at least rudimentary knowledge not only about insurance policies and health care, but also about the medicare system.

Go back to model slide

c. Understanding personal circumstances and the interpersonal context. Considered next are the more individualized, personal, affective and social dimensions of everyday decision making in which individuals take into account their own personal circumstances and contexts (Sternberg & Kolligian, 1990). What insurance plan, for example, represents a viable option for an elderly woman will be partially determined by personal circumstances: Her understanding of her financial status, as well as her understanding of her current and future health status. Likewise, the individual's understanding and assessment of their interpersonal context must be taken into account. For example, what types of health care services need to be purchased will depend in part on the older adult's assessment of their social support network.

d. Attitudes, beliefs, and preferences. Understanding and assessing one's personal circumstances reflects in part certain attitudes, beliefs, and preferences (Baltes & Baltes, 1986; Masterpasqua, 1989; Rodin, Timko & Harris, 1985). For example, health-related locus of control and self-efficacy beliefs (Wallston & Wallston, 1982) will influence decisions regarding health insurance. Locus of control beliefs deal with whether an individual perceives control over one's life to lie primarily under one's own control or whether control is external,

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Slides
1) IADL
2) IADL vs EPT
3) Correlation
Slide
IADL
EPT
→ EPT

determined largely by fate or by powerful others (e.g., doctors, lawyers). Likewise, self-efficacy beliefs reflect one's beliefs regarding one's own competence. Current research on age-related changes in self-efficacy indicates an increased dependence on powerful others in old age (Lachman & Leff, 1989; Levinson, 1974; Willis et al., 1992). Some elderly persons may therefore increasingly seek and depend on the advice of significant others (doctors, lawyers, ministers, adult children) in making important decisions in everyday life.

In his book *Geriatrics and the Law*, Marshall Kapp (1992) repeatedly refers to how the elderly's decisions may be influenced by their awe or deferential respect for their doctor or a lawyer. From a psychological perspective, this awe may reflect an age-related increase in beliefs regarding powerful others - the belief that one is less competent to make decisions and therefore should depend on the advice of powerful others (Levinson, 1974; Wallston & Wallston, 1982). Several studies indicate that the belief that one needs to depend on power other in making decisions increases with age (Lachman & Leff, 1989; Willis et al., 1992). There is considerable debate whether or when increases in dependence on powerful others is efficacious (Lachman, 1986; Lachman & Leff, 1989). Nevertheless, it is important that clinicians and legal professionals involved in assessing competence and in making judgements regarding guardianship be aware of these age-related belief systems.

e. Integration of decision making components Reaching an effective solution involves integration of the above dimensions. Integration is ongoing occurring at various phases of the problem solving process. In medical cases assessing the older patient's ability to give informed consent, an important component is the elderly's ability to articulate the decision making process and to state the rationale for the decision (Appelbaum & Grisso, 1988; Kapp, 1990). Integration of the multiple components in the decision process and articulation of one's rationale for the decision reached may involve several steps: a) Identification of solution alternatives; b) Ruling out options that will not work given the individual's personal circumstances; and c)

Prioritizing the remaining viable options.

Efficacy and Functional Competence

Person-Context Interaction

While the broad sociocultural context is instrumental in defining which specific functional abilities are most salient, assessment of a particular individual's competence must consider the person-context interaction. At issue is the congruence or incongruence between 1) the elderly's level of competence on key functional tasks and 2) the complexity of the environmental demands in the immediate context (Kahana, 1982; Lawton, 1982; Lawton & Parmelee, 1990). The question is whether the individual has the level of functional ability to cope effectively in a particular environmental context.

Let us consider whether a recently widowed 80 year old woman with severe arthritis living in a retirement community has the requisite level of competence to manage her financial affairs. Two different scenarios can illustrate how the interaction of intraindividual ability and contextual demands may lead to different conclusions regarding the level of competence required of the individual. In scenario one, the deceased husband had managed the couple's financial affairs throughout the marriage and the wife had little knowledge of how her considerable inheritance had been invested. The retirement community offered no banking or financial advisory services. The wife did not drive and her only child lived cross country. In scenario two, the deceased husband had suffered from Alzheimer's disease for a number of years and the wife had managed their financial affairs. Full banking services and financial consultation were

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- Person
Context

provided at the retirement community and her only child lived in a near-by community.

The central question is one of the congruence or lack of congruence between intraindividual capabilities and the resources and demands of the physical and social environment (Drane, 1984). With regard to ability to manage one's financial affairs, the size, type and complexity of the individual's property and resources will influence the level of competence required. Figure 4 presents three different conditions under which there could be incongruence between intraindividual capabilities and contextual demands and resources. This is illustrated by three types of triangles. In the central triangle, the increasing lack of congruence is attributed to shifts in both intraindividual and contextual components; intraindividual capabilities decrease and contextual demands increase (or contextual resources decrease). In the left-hand triangle, the increase in incongruence is due primarily to a decrease in intraindividual capabilities, such as organic impairment or severe physical health problems; environmental resources and demands remain constant. In the right hand triangle, the increasing disparity is attributable primarily to an increase in contextual demands; for example in scenario one the woman's functional abilities and health problems remained relatively stable but due to the death of a spouse who had managed the financial affairs the contextual demands increased significantly.

Summary

In this chapter we have considered the geropsychological literature related to four characteristics of legal competence: Focus on functional abilities, causal linkage between incapacity and mental disorder, role of the general environmental context in defining the critical functional domains, and the congruency between the individual's competence and environmental demands. Most older adults are not totally incompetent, and thus guardianship decisions often are concerned with the least restrictive alternative. The task is to determine

the specific domains of functional abilities in which the older adult is deficient and for which a guardian needs to be appointed. Since most legal statutes describe only very general capacities, a major challenge for those involved in assessment and judgement of competence is to define the domains of functional abilities associated with living independently in our society. We suggest that prior research on the Instrumental Activities of Daily Living (IADLs) may be particularly useful to those concerned with guardianship issues.

Competence represents the older adult's potential or capacity for making decisions necessary for care of oneself and maintenance of one's property. Competence is not necessarily reflected in the older adult's everyday behavior. Competence addresses what the individual *can* do, not what he or she actually does. Likewise, competence focuses heavily on the older adult's mental ability to make critical *decisions* regarding care of self and management of property; it does not necessarily require that the older adult be physically able to carry out the required tasks of daily living. Given this perspective on functional competence, we discuss the multiple components that may be involved in decision making. Basic mental abilities and domain-specific knowledge bases are necessary components in decision making, but are not sufficient for generation of adequate problem solutions. There must also be consideration of the elderly's perception of the social and physical environment and their beliefs and preferences regarding alternative problem solutions.

We present data on longitudinal change in problem solving performance for elderly with no known pathologies. Data on normative change in decision making competence can serve as a baseline for assessment and for decisions regarding elderly who suffer from mental disorders. While age-related decline in young-old age (60-75 years) is modest, the rate of average decline increases in old-old age (75+ years). At all chronological ages, elderly with below average educational level function at a lower level. Our research suggests that educationally disadvantaged elderly in very old age (in their 80s and 90s) are increasingly likely to need

assistance in everyday decision making, even though they do not suffer from a specific mental disorder.

It may be argued that the presence of a mental disorder in combination with functional deficits should be sufficient grounds for guardianship decisions. However, the functional deficit may have predated the organic condition, highlighting the importance of determining the premorbid functional competence of the older adult. Given the significant relationship between education and functional competence, low SES elderly may have functioned marginally even prior to diagnosis of an organic impairment. There is also increased risk of misdiagnosis for dementia in low educated elderly, a concern in competency judgments.

The elderly do not live in a vacuum and thus competence cannot be considered without taking into account the environment in which the elderly function. Both the physical and social environment need to be considered in determining which functional abilities are most salient for independent living. An important issue is what criteria to use in determining the functional abilities considered most salient in a given context. Family members, clinicians, social workers, legal professionals and the elderly themselves may disagree regarding the most salient functional domains for defining competence.

While the broad sociocultural context is instrumental in defining which specific functional abilities are most salient, assessment of a particular individual's competence must consider the congruence or incongruence between the elderly's capabilities and the demands and resources in the immediate environment. Person-environment incongruence can occur in three ways: Decreasing individual competence and increasing environmental demands; stability in individual competence but increasing environmental demands; decrease in individual competence but stability in environmental demands.

Our review of the legal and geropsychological literatures suggests that each field has much to contribute to the other. The shifting age structure of our society makes the need for

interdisciplinary exchange all the more imperative. Functional competence in old age is the foremost concern of the elderly themselves and will become an increasing societal concern as the baby boomers reach old age early in the next century. The joint efforts of the legal and psychological communities are needed to meet the challenge.