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Perceptions of Disability: The Effect of Self- and Proxy Response

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This study compares estimates of persons with disabilities based on self- versus proxy reports. In addition, it examines the consistency of reports across two waves of data collection. The findings indicate that self-response tended to produce higher rates of persons with disabilities than proxy reports, although only in the second wave of data collection. In addition, self-respondents provided less consistent responses across the two interviews than proxies did. These findings support theoretical and empirical literature that suggests that self-respondents rely on more dynamic information than proxies in responding to the survey questions. We classified proxy respondents according to their relationship to the target subjects and found that spouse proxies were significantly more likely to provide consistent answers than other proxies. These findings suggest that classifying all proxy reporters as one group may mask the effects of the respondent, since there seem to be significant effects of the proxy-target relationship and the characteristics of proxy respondents on the quality of the data.

Key words: Proxy response; measurement of persons with disabilities.

1. Introduction

Surveys of persons with disabilities face both conceptual and methodological challenges. Most contemporary conceptual models of disability view disability as a function of the interaction between the physical and social environments a person faces (and the accommodations and barriers within those environments) and the individual's personal attributes. In addition, the conceptual models view disability as a dynamic process (in which a person's status can change over time) and as a continuous phenomenon (in which a person falls along a continuum of disablement). As such, questions in surveys should (1) assess both individual attributes and the characteristics of the environment that may affect an individual's participation, (2) allow for the dynamic nature of the process, and

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(3) capture the full spectrum of disability. From a methodological perspective, the empirical literature suggests that estimates of persons with disabilities reflect not only the conceptual framework on which they are based, but also the essential survey conditions, such as question wording, mode of data collection, and response options (e.g., McNeil 1993; Jette 1994; Sampson 1997). Furthermore, terms such as impairment, disability, functional limitation, and participation are often used inconsistently (within the discipline), producing differences in prevalence estimates of persons with disabilities.

The subjective nature of disabilities suggests that the measurement of disability may be prone to both context effects and other features of the survey design. One design feature of particular interest is the use of proxy reporters for the collection of information concerning persons with disabilities. The use of proxy reporters, that is, asking individuals within sampled households to provide information about other members of the household, is a design decision that is often framed as a trade-off among costs, sampling errors, and response errors. The use of proxy informants to collect information about other members of a household can increase the sample size at a lower marginal cost than increasing the number of households. The use of proxy respondents also makes it possible to collect information about persons who might otherwise be lost due to nonresponse resulting from their unwillingness or inability to participate in the survey interview. However, the cost savings from using proxies may be offset by an increase in measurement error relative to self-response.

In the measurement of disability, a proxy's view may not precisely map onto the survey target's view. Proxy respondents have been found to draw on different information than self-respondents in carrying out the cognitive tasks required in surveys (Schwarz and Wellens 1997), partly because proxy respondents, in general, do not have as much information about the target as self-respondents do. In spite of these doubts about the quality of proxy reports, past research comparing self- and proxy responses has not found consistent differences in favor of self-responses over proxy responses. This failure may have resulted from (1) nonrandom selection of the respondent, which only a few studies have addressed (Moore 1988; Mathiowetz and Groves 1985; Blair et al. 1991); (2) failure to distinguish different types of proxies such as spouses, other family members, more distant relatives, roommates, and neighbors, whose depth and breadth of shared information are likely to vary dramatically; and (3) variation in the survey topics on which self- and proxy reports were compared.

This study attempts to provide insight into self- and proxy differences with respect to the measurement of persons with disabilities. To cope with the shortcomings in past research, we compare estimates of persons with disabilities by respondent type in a study in which response status (self versus proxy) was randomized. In addition, the consistency of reports across two waves of data collection is examined.

2. Conceptual Framework for Disability

Contemporary models of disability stem from Nagi's framework, which conceptualizes disability as an interaction between a person's mental or physical capabilities and the demands created by the surrounding social and physical environments (Nagi 1964; 1965). More recently, Nagi (1991) describes the environment as including the natural environment, the built environment, the culture, the economic and political system, and psychological factors. Further, he distinguishes disability (social roles and participation) from three other interrelated concepts: active pathology (interruption of normal, cellular processes), impairment (loss or abnormality at the tissue, organ and body system level), and functional limitations (restrictions in the basic performance of the person). Since Nagi's work, there has been an extensive effort to understand disability as a continuum measured in a changing social context.

More recent conceptual models of disability argue that Nagi's models fail to capture the dynamic nature of disability, as his models view disablement as a simple linear progression of illness and each stage of disablement as static. The newer models also emphasize that the disability process is complex and dynamic (Fougeyrollas 1998; Institute of Medicine 1991; 1997; Verbrugge and Jette 1994). An important aspect of the more recent models is the inclusion of secondary consequences of impairments in the measurement of disability (Marge 1988). Consider, for example, two individuals with the same impairment (e.g., the amputation of a foot due to diabetes). Both individuals may still be able to perform social roles, but one of them may suffer from severe depression because he or she is no longer able to play football. The various contemporary models account for the secondary consequences of primary impairing conditions in different ways.

3. Respondent Rules and Disability Surveys

Because disability is a dynamic concept related to an underlying interface between an individual, societal accommodations and barriers, and cultural norms and expectations, the classification of an individual as having a disability or not is a complex and subjective judgment. Consider a man in a wheelchair – an archetype of a person with a disability. Even though this man has an impairment, he may not perceive himself as having a disability, because he rarely experiences difficulties getting around thanks to modifications made to his workplace and home. Although others may consider him to have a disability, he does not. In contrast, consider a woman with an obsessive-compulsive disorder that is controlled by medication – she may consider herself to have a disability, even though others may not view her as having a disability as she functions well both at work and at home.

The classification of a person as having a disability requires information not only about personal attributes (e.g., impairments) but also about the relation between those personal attributes and the environment in which the person lives. Accordingly, responses to survey questions concerning whether a person has a disability may vary as a function of respondent type (self versus proxy) and as a function of the proxy's relation to the target person.

3.1. Cognitive processes and self- versus proxy respondents

The differences between the cognitive processes involved in answering questions about oneself and about someone else may explain why self- and proxy reports differ. There are potential differences in each of the five components of the survey response process: encoding, comprehension, retrieval, judgment, and communication (Hastie and Carlston

1980; Tourangeau 1984). Survey respondents appear to take a systematically different route when they are answering for other people.

First, prior to the survey, respondents need to have encoded the relevant information. The information that self- and proxy respondents encode differs in amount and type. Self-respondents typically have detailed first-hand information based directly on their experiences (Schwarz and Wellens 1997; Tourangeau et al. 2000). In contrast, proxy respondents are privy only to partial, second-hand information when answering questions about others (Tourangeau et al. 2000). A common exception to this rule may be the person who is primarily responsible for another's health care (e.g., a mother of young children or a caretaker for an elderly individual), who may have the same type and level of information as the person they care for. Another exception may be the cases where a target and the proxy share the relevant experiences. Such joint participation is found to lead proxy respondents to use more specific information (Menon et al. 1995). For survey topics about which people do not share information actively, such as a new product concept used in Davis et al. (1986), the quality of proxy reports appears low.

The next component of the response process is question comprehension. Little research has been conducted on the difference in the comprehension of questions based on respondent type. In many surveys, proxy respondents also report initially for themselves; as a result, comprehension of the question for a proxy respondent may be influenced by the initial response concerning oneself, an example of the use of an anchoring and adjustment heuristic (Tversky and Kahneman 1974).

Third, self- and proxy respondents may differ in how they retrieve memories or knowledge relevant to the question. A self-respondent's own disability is a more salient matter than another person's, with the possible exception of those family members responsible for providing health care. Proxy respondents may be more likely than self-respondents to experience difficulties searching their memories for appropriate information from which to make a judgment about a target person's health condition, due to the difference in the amount and salience of the information encoded. Blair et al. (1991) suggest that there may also be motivational differences between self- and proxy respondents. They find that proxy respondents use estimation more frequently than self-respondents in reporting behavioral frequencies. The use of estimation in the formulation of proxy reports could be a function of either the differential amounts of encoded information or the differential willingness to engage in a thorough retrieval for questions concerning someone else (Krosnick and Alwin 1987; Krosnick 1991). Whether the source is limited encoding or limited effort, both factors would lead to the retrieval of relatively unchanging information in forming proxy responses.

The fourth component is response formation and judgment. Based on Jones and Nisbett's (1971) analysis of actor-observer differences, Schwarz and Wellens (1997) argue that self- and proxy respondents use systematically different types of information to form responses to survey questions. When their own behaviors are at issue, self-respondents have detailed information and are able to report based on first-hand information. This information is specific and situational. Proxy respondents draw more on information from simple observable attributes of the target subject, because the target's action is not the focus of the proxy's attention unless the action is jointly taken (Groves 1989; Blair et al. 1991). Proxies often estimate or make inferences from a target's relatively static dispositional characteristics (Blair et al. 1991). Thus, proxy reports tend to be stable and predictable (Schwarz and Wellens 1997). Proxy reports may be more consistent over time for observable physical conditions than self-reports. However, this stability does not necessarily mean greater accuracy, because self-reports are more likely to take into account changes in health as well as the impact of different situations, information that is usually not available to proxy reporters. In addition, if proxy respondents exert only minimal effort to meet the survey requirements compared to self-respondents, answers from proxy respondents will be more likely to be based on heuristics than those from self-respondents (Kahneman and Tversky 1971). One of the heuristics that proxies use is to project their own behaviors, attitudes, or beliefs onto the targets. Under this strategy, proxies form responses first by anchoring on their answers for themselves and then by adjusting to account for the differences between them and the survey targets (Tversky and Kahneman 1974; Davis et al. 1986).

In the communication of a response, the fifth component, respondents must consider the extent to which group membership (e.g., classification as a person with a disability) carries any social stigma with it. As with other phenomena subject to social desirability bias, willingness to report is a function of the social costs. Since proxy informants are relatively free from self-presentation pressure, they may be more willing to reveal sensitive attributes of the sampled persons (Blair et al. 1991), like having a disability.

The differences in the cognitive processes of self- and proxy respondents in disability surveys can be summarized as follows. On the one hand, we would expect information obtained via proxy respondents to be of lower quality as compared to that of self-reports, since proxies, in general, will have encoded less information than proxies. In addition, the information that proxies do have is likely to consist of stable characteristics as compared to self-respondents' more specific episodic information. Proxy respondents may engage in less extensive cognitive processing than self-respondents and provide heuristic-based responses. On the other hand, if the classification of an individual as a person with a disability is sensitive, proxy respondents may be more willing to provide accurate information than self-respondents, because they are less likely to be affected by social desirability concerns.

The empirical literature comparing the quality of self- and proxy reports is inconclusive. For many studies, researchers rely on the notion that increased reporting of some phenomena is indicative of better reporting. Some studies find that proxy reporting produces increased reports of health problems and higher rates of disability than self-reporting (e.g., the proportions of persons with various disabling conditions in Andresen et al. 1999; bed days and doctor visits in Mathiowetz and Groves 1985); but others find the opposite (e.g., the proportion of persons reporting mobility problems in Iezzoni et al. 2000; days of disability in Nisselson and Woolsey 1959). Differences in motivation, in the amounts and types of information, and in social desirability pressures may all contribute to self-proxy discrepancies in the reporting of persons with disabilities. However, we note that many of the comparisons of self- and proxy reports in many studies are confounded by nonrandom assignment of persons to self-proxy response status (Blair et al. 1991; Moore 1988; Mathiowetz and Groves 1985).

3.2. Reporting consistency and self- versus proxy respondents

If proxy reports are more likely to be based on static characteristics and self-reports more likely to be based on episodic information, we would anticipate that the consistency of reporting for self- and proxy respondents differs, with more consistent reports from proxies than from self-respondents. Schwarz and Wellens (1997) report more consistent reporting over time by proxies, but warn that the higher consistency of proxy responses does not mean better data quality; it merely reflects proxy respondents' reliance on stable characteristics of the target.

Little research has been conducted to compare the consistency of self- and proxy reports over time. McNeil (1998) examines the consistency over time of reports of impairments in the U.S. Survey of Income and Program Participation. His research compared two groups of respondents over two waves of data collection: those who reported for themselves in both waves and all cases for whom information was collected in the two waves. The latter group includes those who reported for themselves in both waves, those for whom data were collected by proxy in both waves (not necessarily the same proxy), and those for whom the data were collected by both self and proxy reports. The comparison is not, therefore, ideal with respect to understanding the effects of self- versus proxy response status. In contrast to the findings of Schwarz and Wellens (1997), McNeil's research indicates a trend toward more consistent reporting among those cases in which an individual reports for him or herself in both waves as compared to the consistency across all cases.

3.3. Characteristics of proxy respondents

The absence of a substantial difference between self- and proxy responses is regarded as encouraging evidence for surveys that collect proxy responses (e.g., Nisselson and Woolsey 1959; Martin and Butcher 1982). However, the past studies may have failed to produce conclusive evidence concerning the overall quality of proxy response, because these studies lump all proxy respondents together.

The literature suggests two respondent characteristics that can affect the quality of proxy responses: social relationship and memory capability. Groves (1989) argues that the variability in the quality of proxy data should be a function of the relationship between the proxy and the subject of the report. The degree of familiarity between an individual and the person for whom they are reporting may affect the accuracy of the answer, and differences between self- and proxy reports may be related to the relationship between a target and the proxy (Groves 1989; Blair et al. 1991). The closer the relationship, the more likely that self- and proxy reports will agree. Joint participation and frequent discussion may also increase the convergence between self- and proxy responses (Menon et al. 1995; Sudman et al. 1996). In line with these hypotheses, spouse proxies are found to agree with self-respondents at a higher rate than other proxy respondents (e.g., Andresen et al. 1999; Kolomel et al. 1977). Similarly, Blair et al. (1991) find that the length of a relationship appears to have a positive effect on the convergence of self- and proxy reports.

The memory capacity of the respondent has been found to have an effect on quality of health-related reports (Fisher 1962). Elderly respondents are less able to retrieve accurate information from memory and are less likely to stay on the topic than younger respondents. Respondent's age is closely but negatively related to memory ability (Groves 1989; Herzog and Rodgers 1989). However, one needs to be cautious in generalizing about the effects of respondent's age, since elderly respondents are likely to have known the person they are being asked to report on longer than younger respondents and the increase in familiarity with the target may cancel out the effects of diminished memory capacity.

Understanding the factors which lead to differences in reports by self- and proxy respondents is particularly important in the measurement of disability, since the use of proxy respondents may be confounded with the phenomenon of interest (e.g., impairment that limits participation in surveys). In light of the lack of consistent findings about the quality of self- and proxy reports, and more specifically the effects concerning the measurement of persons with disabilities, this article examines self/proxy differences drawing data from a two-wave disability survey in which respondent type was randomly varied.

4. Study Design

The interviews were conducted by the Gallup Organization during the summer and fall of 2001 via computer assisted telephone interviewing. The target population was households with two or more members who were 40 years old or older. The purpose of this age restriction was to increase the proportion of persons classified as having a disability; the purpose of limiting the study to households with two eligible members was to facilitate a comparison of self- and proxy reports. The goal of the study was not to produce population estimates of persons with disabilities, but rather to test the effects of a number of design features on estimates of persons with disabilities. The design did not include accommodations for those respondents who were unable to take part by telephone. Two waves of data collection were fielded approximately two weeks apart. The short time frame between the two interviews was set so as to minimize the effects of real health change over time. In both waves, the respondent reported for him or herself as well as one other adult in the same household who met the age restriction.

In the initial interview in each household, a respondent was randomly selected via the last-birthday selection method. In a randomly selected subsample of the households, the same respondent was to be interviewed in the second wave. In the remaining half, the uninterviewed adult in the first wave was to serve as the respondent in the second. This design resulted in three combinations of respondent types across the two waves: (1) those for whom data were only collected via self-respondents; (2) those for whom data were only collected via proxy respondents; and (3) those for whom data were collected in one wave via self-respondents and in the other wave via proxy respondents (see the Appendix for a diagram illustrating the design).

A total of 8,012 numbers were fielded for the initial interview. About a third of the households that completed the screening questions had two or more eligible members (33.2 percent) and 1,002 of them completed the initial interview. According to the American Association for Public Opinion Research formula RR3, this resulted in a response rate of 64.1 percent. Of the 1,002 responding households in the initial wave, 800 completed the second interview for a response rate of 79.8 percent. The overall response rate across the two interviews was 51.2 percent.

5. Findings

Our analysis focuses on three questions: (1) To what extent do responses provided by self-respondents differ from those provided by proxies? (2) To what extent is the consistency of responses across waves affected by respondent type? and (3) To what extent is the consistency in the reports of persons with disabilities affected by the nature of the relationship between a target and the proxy and by the characteristics of the proxy respondents? All analyses were conducted at the person level, and SUDAAN was used to take into account the clustering of observations within households.

5.1. Difference between self- and proxy reports of disability

In both the initial interview and the reinterview, the respondents were asked questions concerning the perception of having a disability ("Do you consider [yourself/TARGET PERSON] to have a disability?"). Prior to this question, respondents were asked a number of questions about their own impairments and disabilities as well as those of the other selected adults in the same household, including sensory impairments, physical impairments, difficulties learning and remembering, difficulties performing activities of daily living, difficulties functioning outside the home, and difficulties working at a job or business. It is possible that the content of the preceding questions sensitized respondents to their limitations, affecting reports of perceiving as having a disability. In the first wave of data collection, 16.0 percent of the sample classified themselves (or the target person) as having a disability, and the estimate dropped to 14.5 percent in the second wave.

Table 1 provides the estimates of persons with disabilities from both waves of the survey by respondent type. Self-respondents tend to consider themselves as having a disability at a higher rate than proxy respondents do. This effect of respondent type is significant in the second wave with $p < .01$.

Table 1. Persons reported to have a disability by respondent type and wave

	Having a disability (%)	$(n)^a$	$\chi^2(df)$	p
Wave 1[b]				
Self	16.2	998	0.05 (1)	0.8155
Proxy	15.8	997		
Wave 2[c]				
Self	17.1	797	8.16 (1)	0.0043
Proxy	12.0	792		

[a] Unweighted count.

[b] 9 cases are excluded due to item nonresponse.

[c] 11 cases are excluded due to item nonresponse.

We note that the self-proxy difference is not significant in the first wave, in which respondents were selected by the last-birthday method. Although existing studies comparing the last-birthday method and other selection methods (e.g., Kish's method) have shown no difference in terms of demographic characteristics, Lavrakas et al. (1993) and O'Rourke and Blair (1983) suggest that the last-birthday method may lead to an incorrect respondent selection due to self-selection bias. Self-selection bias may thus have obscured any self-proxy differences in the first interview.

5.2. *Overall consistency in the reporting of disability*

The study design allows us to examine the response consistency across three combinations of respondents: self/self, proxy/proxy, and mixed (self/proxy and proxy/self). Table 2 presents the rates of response inconsistency across these three respondent combinations.

Table 2. Response inconsistency by respondent type

	Inconsistent (%)	(*n*)	$\chi^2(df)$	*p*
Overall	9.5	1,584[a]	12.23 (2)	0.0022
Self/self	8.2	371		
Mixed[b]	11.8	845		
Proxy/proxy	5.7	368		

[a] Unweighted count after excluding 16 missing cases.

[b] Self/proxy and Proxy/self respondent types are collapsed. They did not differ in terms of the demographic characteristics and dependent variables the study examines.

In approximately 90 percent of the cases, the same response was provided in both waves. However, the rate of inconsistency varies significantly ($p < .01$) across the three respondent types. Consistency is highest when proxies are used for both interviews, although the difference between self/self and proxy/proxy respondents is not statistically significant ($p = .17$). This echoes the findings by Schwarz and Wellens (1997); the higher inconsistency for where both self- and proxy respondents were used suggests that the information used to judge disability status may be substantially different for the two types of respondents.

5.3. *Effects of respondent characteristics on proxy reporting consistency*

There are many types of "social relationships" between a target and the proxy (Groves 1989). We expected that proxies with different relations to the target might differ in the consistency of their reports across interviews. Limiting our sample to include only those cases for which the report was obtained from the same respondent in both waves of interviewing ($n = 750$), we examine the effect of the nature of social relationship between the reporter and the target subject on the consistency of response across waves. Table 3 presents the results of a logistic regression model predicting consistency of reports across the two waves of data collection.

Table 3. Logistic regression coefficients for the consistency in reports of disability for respondent type and relationship, respondent age, and health change of the target subject ($n = 738^{a}$)^{b}

Predictor	Coefficient (S.E.)	Odds ratio	t-value	p
Constant	5.48 (0.94)	240.14	5.81	0.0000
Respondent type and relationship				
Self	0.61 (0.55)	1.85	1.12	0.2653
Spouse proxy	1.23 (0.59)	3.42	2.10	0.0361
Other proxy	–	1.00	–	–
Respondent age	− 0.06 (0.01)	0.94	−4.91	0.0000
Health change				
Change	−1.26 (0.47)	0.28	−2.67	0.0079
No change	–	1.00	–	–

$L^2 = 38.77$ $df = 4$.

[a] Unweighted count after excluding 12 missing cases.

[b] Note that the analysis is limited to those cases in which the same respondent reported in both waves of data collection.

The first predictor variable, the combination of respondent type and relationship, has three categories: self-respondents, spouse proxy respondents, and other proxy respondents including parents, sons and daughters, siblings, families-in-law, other relatives, and roommates. This variable is used to assess how different relationships between a target and the proxy affect consistency. A reported change in health after the first interview is included in the model to control for actual instability in disability status. Health change and respondent type might be related (with self-reporters indicating change more often than proxies); however, a chi-square test shows health change does not differ by respondent type ($p = .79$).

Spouse proxy respondents are more likely to be consistent in reporting disability than other types of proxies; the odds ratio for the spouse proxy group is 3.42 times larger than that for the other proxy group ($p < .05$). The difference in the consistency of reporting by self-respondents and the proxies other than spouses is not significant. Consistency may be lower among self-respondents than among spouse proxies because self-reporters incorporate more detailed, dynamic information into their answers. Consistency may be lower among nonspouse proxies for a different reason – nonspouse proxies may simply have less information than spouses, leading to the introduction of random noise. Respondent age appears to have a significant effect on consistency. As expected, the effect of health change is significant; when the target's health change is reported, the odds ratio of having consistent reports is only 0.28.

We further examine the effects of proxy respondent type by limiting our model to those 375 cases in which the same proxy respondents provided information in both waves of data collection. We expected proxy respondents to differ according to their social relationship and the familiarity with the target; in addition, we expected the age of proxy respondents to affect the consistency of their reports. The model also included the interaction between the respondent age at Wave 1 and the years the respondent and target have lived together. The correlation between the two is quite strong at 0.546.

Table 4. Logistic regression coefficients for the consistency in reports of disability for relationship, respondent age, duration of relationship, health change of the target subject ($n = 362^{a}$)[b]

Predictor	Coefficient (S.E.)	Odds ratio	t-value	p
Constant	9.25 (3.10)	10,408.33	2.98	0.0030
Target-Proxy relationship				
Spouse	1.94 (0.69)	6.95	2.83	0.0049
Others	–	1.00	–	–
Wave 1 respondent age	−0.11 (0.05)	0.90	−2.39	0.0173
Duration of relationship	−0.14 (0.09)	0.87	−1.62	0.1062
Health change				
Change	−1.22 (0.65)	0.29	−1.89	0.0600
No change	–	1.00	–	–
Interaction:				
Age 1 x Duration	0.00 (0.00)	1.00	1.30	0.1958

$L^2 = 31.57$ $df = 5$.

[a] Unweighted count after excluding 13 missing cases.

[b] Note that the analysis is limited to those cases in which the same proxy provided information in both waves of data collection.

Table 4 again indicates that spouse proxies are significantly more likely to provide consistent information than other types of proxies, that consistency declines as the age of the respondent increases, and that reported changes in the target subject's health lower the level of consistency. Surprisingly, we find no effect for the duration of the relationship between the respondent and the target.

The model for all cases with same respondent (Table 3) and the one for cases with same proxy respondent (Table 4) show very similar effects of respondent attributes on the consistency of disability reporting. First, self-respondents are somewhat less consistent than proxy respondents. As Schwarz and Wellens (1997) argue, this finding suggests that the proxy respondents rely on relatively stable dispositional traits of target persons. Reports by spouse proxies were significantly more likely to be consistent than reports by other proxies. We would expect that spouse proxies have more information than other proxy reporters and would, therefore, show a higher rate of consistency than other types of proxy reporters. The findings in Tables 3 and 4 suggest that other types of proxy respondents may not even have partial or general information about the target's disability on which to base their answers (Menon et al. 1995). The significant effect of respondent age suggests that diminished memory capacity may reduce the consistency of reports over time. Health changes between the two interviews significantly lowered consistency; as expected, a significant change in a person's health was associated with inconsistent responses about the individual's disability status.

6. Discussion

This study indicates that there are differences between self- and proxy responses. Although we found no difference between self- and proxy reports in the initial wave of data collection, self-responses in the second wave of reporting produced a significantly higher estimate of persons with disabilities than proxy responses. The last-birthday method may have weakened the effect of the respondent in the first wave of data collection.

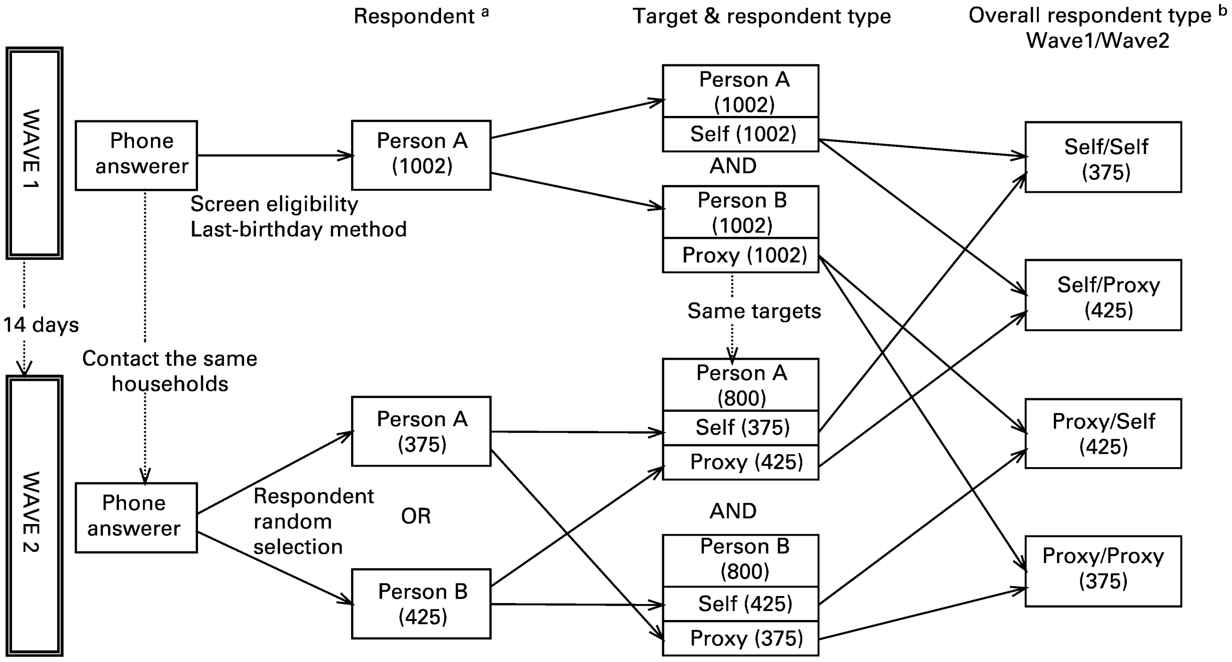
Under the assumption that higher estimates of disability represent more accurate data, the lower rate of disability based on proxy responses compared to self-responses suggests that the information proxy respondents retrieve may not be as complete as the information that self-respondents retrieve. In contrast to self-respondents, who are aware of their private symptoms and conditions and are able to take account of these when reporting disability, proxy respondents may have information concerning only those impairments that are observable or that the target has mentioned to the proxy. Other differences in the amount or kind of information available to self- and proxy reporters may also contribute to differences in their reports. In addition, proxy respondents may also be less motivated than self-respondents and thus more likely to provide "satisficing" rather than optimal answers to the questions.

Examination of the consistency of responses across time (Table 2) showed that the highest rates of inconsistency were found for those cases in which different respondents provided the information in the two waves of data collection. As noted earlier, the significantly higher rate of inconsistency for this group (as compared to those for whom data were collected from the same respondent, whether self or proxy, in both waves) provides some empirical evidence that self- and proxy respondents draw on different information in forming their responses. The source of the difference does not appear to be social desirability, since self-response resulted in rates of disability that were equal to or higher than those based on proxy responses. Hence, the self-proxy difference may be related to cognitive processes, either the difference in the richness of the encoded material or differences in retrieval of information.

Among the cases for whom the same respondents provided data in both waves, there was no significant difference in the inconsistency rates between the self- and proxy reports (Table 2). However, when we examined the nature of the relationship between the reporter and the target, we found differences between spouses and other proxy reporters (Table 3). Consistency was higher among spouse proxies than among other proxies, and there was no significant difference in the response consistency between other proxies and self-respondents. This latter finding seems to imply that nonspouse proxies may not have sufficient information on which to rely when making a judgment about the target's disability. Inconsistency across waves was also found to be a function of age; elderly respondents were significantly less consistent than younger respondents, presumably because of diminished memory capacity.

The duration of relationship was found to have no effect on the consistency of proxy reports. Quite possibly, all of the proxies had close relationships and were highly familiar with the targets since the proxies and targets were living together. This may have limited our ability to detect any effects of the familiarity of target and proxy (as measured by the length of their relationship). Still, it is clear that not all proxies are alike. For disability reporting, spouses and younger respondents give the most consistent proxy reports.

Appendix. Overall Study Design



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a. A selected respondent answers about two members from the household: him or herself and another eligible person in the household.

b. The categories of testing internal consistency reflect the respondent type.

Note: Data are from the initial interviews only. Numbers in parentheses represent cell sample sizes.

(Source: Lee 2002)

7. References

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