



# **Administrator's Guide**

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# Introduction

The Values Arrangement List (VAL) is an assessment designed to measure and define the values that are most important to an individual. This information provides an understanding of why people conduct their lives the way they do, and why they might work toward specific goals. The VAL also enables an individual to see that others have some value concepts in common with his or her own and some that differ, which can improve the way people work and live together. The VAL relies on a rich philosophical, historical, and academic tradition for defining values and employs modern statistical scoring methods to generate the survey results.

## When can the VAL be used?

Individuals can use the VAL to further their personal and professional growth. For example, it can help them gain insight into which jobs, tasks, and assignments they are likely to approach with the most energy.

The VAL can also be used for coaching employees. Understanding what employees value most and why can help coaches structure assignments or roles so that individuals perform productively and obtain a sense of meaning from their work.

## Who can administer the VAL?

Administrators of the VAL should have training in how to administer psychological surveys and should have a strong understanding of the environment in which the surveys are going to be used. Because the VAL provides computer-generated results in straightforward terms, a graduate degree in psychology, education, or the equivalent is not required. However, a background in psychological theory and test measurement would be helpful for administrators in all settings.

In addition, certification training is recommended and offered through Golden, LLC. Certification training is designed to teach people how to use the VAL responsibly and effectively in areas such as developmental planning, executive coaching, and team building. More information is available at 800-211-8378 or at [www.GoldenLLC.com](http://www.GoldenLLC.com).

## Who can take the VAL?

The VAL is designed for adults over age 16 who can read at least at the tenth-grade level.

## How long does it take to complete the VAL?

The VAL takes approximately 30 minutes to complete.

## Internet-based E-testing System

The VAL is administered through [HarcourtTestCenter.com](http://HarcourtTestCenter.com), an Internet-based e-testing system designed by Harcourt Assessment. The system enables individuals to order, administer, and score surveys online. After the surveys are completed, the data are captured for processing and the results are immediately available in an interpretive report.

## Administration

Participants are e-mailed a link to the survey and instructions for logging in. Administrators can log into the survey on behalf of participants if necessary. In either case, once the initial instruction screen for the VAL has been accessed, the on-screen directions will take participants through the process.

The online administration begins with some demographic questions, then moves to the VAL survey, and ends with a few additional demographic questions. The participant has the option of skipping items and returning to them later as well as reviewing completed items.

Participants should be given as much time as they need to complete the VAL. Most complete it in about 25 to 30 minutes.

### **Confidentiality of VAL Scores**

Administrators should be careful and respectful about sharing information contained in a participant's report. VAL results, like test results, should be treated as confidential unless a participant consents to sharing his or her results with other individuals (as is done in some team-building sessions).

### **Item Format**

The VAL survey contains 42 sets of values arranged in groups of five. Each value is accompanied by a definition. As each set appears on the screen, the respondent selects the value that is most important to him or her, then the name of the value moves to the box of selected values. The respondent continues by choosing the second most important value, and so on down to the least important of the five in the set.

## **Theory and Background**

### **What Are Values?**

Values are an individual's enduring beliefs that a certain way of behaving or certain life goals are personally or socially preferable. Values define who an individual is, why he or she acts in certain ways, and how he or she interacts with others. Knowing what is important to him or her leads to deeper self-knowledge and awareness. Values are influenced by many factors, such as personal experiences, parents, school, peers, religious teachings, the community, and culture.

### **Operational and Life Values**

For the purposes of the VAL report, values are organized into two categories—operational values and life values. Operational values are a means to an end and are associated with day-to-day activities. Life values are the end state and are associated with ultimate aspirations, or what individuals strive to maintain or achieve over their life span.

An individual may use any of the 21 operational values as a way of obtaining one or more of the 21 life values. For example, the life value of fellowship may be very important. Several operational values could be used toward the end result of fellowship. If one believes that a responsible person ends up having many friends, he or she might use the operational value of accountability to achieve fellowship. If one believes that caring and truthfulness go hand-in-hand in achieving fellowship, he or she might rate affection and honesty as more important than other operational values.

When understood and used effectively, operational values link short-term goals to long-term goals. Operational values can be competency values, moral values, or both. Competency values are those related to performance and effectiveness, and they enhance self-development. Moral values refer mainly to ethics and rules of right and wrong. The values below are labeled either Competency (C), Moral (M), or both (C/M).

## VAL Operational Values

- Accountability: being responsible, credible, trustworthy (C)
- Affection: being passionate, loving, and caring (M)
- Autonomy: being self-directing, self-reliant, and free (C)
- Competency: being productive, efficient, and skillful (C)
- Courage: being brave, intrepid, and fearless (M)
- Courtesy: being respectful, considerate, and polite (M)
- Creativity: being inventive, original, and innovative (C)
- Discipline: being restrained and self-controlled (C/M)
- Drive: being industrious and goal-directed (C)
- Fairness: being unbiased, impartial, and just (M)
- Flexibility: being adaptable and able to change (C)
- Forgiveness: being able to excuse and let go (M)
- Honesty: being moral, ethical, and truthful (M)
- Humor: being light-hearted, witty, and funny (C/M)
- Knowledge: being wise and scholarly (C)
- Loyalty: being dedicated, devoted, and steadfast (M)
- Obedience: being compliant, deferential, and yielding (M)
- Order: being systematic, organized, and well-kept (C/M)
- Reason: being rational, analytical, and logical (C)
- Service: being supportive, aiding, and assisting (M)
- Tolerance: being open, accepting, and patient (M)

The life values are the core of individuals' highest ambitions, guiding and motivating them to achieve their needs, personal goals, and lifelong desires. Life values can have a personal or a social focus. Personal-oriented life values relate to the individual alone, because they focus on the self, or on the intrapersonal. Social-oriented life values suggest the involvement and importance of other people to the individual. They have an interpersonal, or society-centered focus.

Although most life values have either a personal or a social focus, some can have both, depending on how each individual defines them. Life values differ from operational values because life values are more difficult to define and put into practice. The 21 life values are provided below. A (P) next to the definition designates values with a personal-oriented focus, an (S) designates a social-oriented focus, and (P/S) designates both.

## **VAL Life Values**

- Achievement: attainment of goals and aspirations (P)
- Adventure: pursuit of excitement and taking risks (P)
- Aesthetics: appreciation and enjoyment of the arts (P)
- Community: activity in social or citizen groups (S)
- Equality: justice and fair treatment for all (S)
- Fame: recognition and acknowledgment of contributions (P)
- Family: close relationships and support of loved ones (S)
- Freedom: independence in thought and lifestyle (P/S)
- Fellowship: having important relationships with friends (S)
- Happiness: satisfaction, joy, and contentment (P)
- Health: soundness of body and mind (P)
- Love: intimacy, devotion, and warmth (S)
- Nature: respect for animals and the environment (S)
- Peace: enduring harmony and freedom from violence (S)
- Pleasure: entertainment, relaxation, and fun (P)
- Power: authority, control, and influence (P/S)
- Self-Worth: high regard for oneself and others (P/S)
- Social Service: contributing to the welfare of others (S)
- Spirituality: at one with God; religious beliefs (P)
- Wealth: affluence, ease, and prosperity (P)
- Wisdom: insight, knowledge, and understanding (P)

## **The VAL Narrative Feedback Report**

The VAL report was designed for easy interpretation by respondents. Page 1 of the report provides a general introduction to life values and operational values. Page 2 reports respondents' operational and life ranking consistency scores and specifies how they should interpret their own scores. Pages 3 and 4 provide information on how the respondents' value system can be interpreted. These pages also provide an explanation of rank scores and the categories competency/moral and social/personal. Pages 5 and 6 provide a comparison of the respondents' value rankings and those of a comparison group of 2,793 individuals. Page 7 provides value consistency percentages, indicating how consistently the individual ranked each given value.

### **Interpretation of the VAL Report**

Each VAL report is as unique as the person who completes the survey. Therefore, interpretation of the VAL is a highly personal process. It is important to remember that the VAL is not a test, that there are no right or wrong answers, and that no set of rankings is better than another. In other words, one set of values is no better than another. They are just different.

The VAL report is designed to provide insight into a person's everyday and lifelong priorities. It does not always reflect whether individuals currently use their values as guiding principles in their lives. For example, a person may believe that creativity is an effective means for achieving longer-term goals but may face situational circumstances that force a delay in acting on this value, such as a job that discourages creativity. Considering situational circumstances in addition to values will help ensure that VAL results are interpreted appropriately.

Two types of scores are important in the interpretation of the VAL: consistency and rank scores (described next). Administrators of the VAL are encouraged to take the survey themselves to become familiar with the report's contents and structure.

### ***Interpretation of the Consistency Scores***

The consistency score is an overall measure of how consistent an individual was in ranking each set of values in the survey. There are two consistency scores, one for life values and one for operational values. Each consistency score is interpreted separately. The consistency score can range from 0–100. Because the VAL is not a test in the traditional sense, the consistency score is not an indication of pass or fail. It is a suggestion of the reliability or dependability of value priorities from one situation to the next. Scores of 90–100 are reported as highly consistent, 80–89 clearly consistent, 70–79 somewhat consistent, and 0–69 as less consistent. As a general rule, if a respondent obtains a ranking consistency score below 70, the results should not be considered valid for that section.

In general, the higher the consistency score, the more consistent the individual was in the overall ranking process. However, interpreting the score requires some caution. A low consistency score may indicate that an individual is very flexible in the application of values from one situation to the next. Although it is rare in our experience, this inconsistency may be a conscious and carefully thought-out sign of a highly self-actualized person. On the other hand, the individual may not have a well-established value system and may act differently in various situations, without really knowing why. Therefore, the interpretation of the consistency score is not clear-cut. It is up to the individual to determine whether he or she varies the importance of values according to the situation or really needs to better define priorities and values.

### ***Interpretation of the Rank Scores***

The rank scores range from 1–21. A rank of 1 indicates that an individual considers the value to be the most important, and a rank of 21 indicates that the value is the least important to the individual. It is rare for an individual to consistently rank all 21 values in sequential order. It is common to have some ties and some gaps between rank scores.

## **Development of the VAL**

The life values and operational values that form the conceptual foundation of the VAL were based on research done by the author (Golden, 2001), as well as the work of Rokeach (1973, 1979) and other values researchers (Simon, Howe, & Kirschenbaum, 1972; Smith, 1977). A summary of descriptive statistics, as well as reliability and validity, follows.

### **Descriptive Statistics of the Normative Sample**

The normative sample collected by Golden (2001) consisted of 4,268 participants. The mean or average age was 35.5 years. The normative sample was 61.0% male and 39% female. Of the 97.4% reporting their race or ethnic group, 89.2% were white, 4.8% were African American, 2.3% were Asian/Pacific Islander, 2.2% were Hispanic, 0.4% were Native American (Aleutian/American Indian), and 1.1% identified

themselves as “Other.” The mean and median scores for each of the life values for the normative sample are shown in Table 1, in ascending mean rank order, along with the standard deviation, the highest and lowest scores achieved, the skewness, and the kurtosis. The most important life value to the sample was family. Love, self-worth, health, and happiness followed in importance. The lowest in importance was aesthetics, followed by fame.

**Table 1. VAL Life Values Descriptive Statistics**

Life Values	Mean Rank Score	Median Rank Score	<i>SD</i>	Highest Rank Score	Lowest Rank Score	Skewness	Kurtosis
Family	4.10	3	3.42	1	21	1.65	2.71
Love	5.45	4	3.97	1	21	1.18	1.02
Self-Worth	6.30	5	3.88	1	20	.88	.34
Health	6.55	6	4.00	1	20	.64	-.23
Happiness	6.87	6	3.48	1	19	.60	-.01
Wisdom	7.56	7	3.77	1	20	.39	-.34
Freedom	8.23	8	3.97	1	21	.27	-.40
Achievement	8.81	9	3.74	1	20	.16	-.48
Fellowship	9.13	9	3.73	1	21	.30	-.48
Spirituality	9.98	10	7.34	1	21	.11	-1.50
Equality	10.39	10	3.43	1	21	.06	-.70
Peace	11.07	11	4.36	1	21	.08	-.62
Pleasure	12.43	13	3.90	1	21	-.29	-.47
Social Service	13.76	14	4.18	1	21	-.48	-.30
Wealth	14.61	15	4.46	1	21	-.69	-.14
Adventure	14.76	16	4.67	1	21	-.78	-.08
Power	15.58	17	4.60	1	21	-.93	.19
Nature	15.64	16	3.89	1	21	-.81	.38
Community	15.88	16	3.40	2	21	-.82	.45
Fame	16.60	18	4.16	1	21	-1.16	.85
Aesthetics	17.31	18	3.57	1	21	-1.32	1.75

With the exception of spirituality, all of the life values had standard deviations between 3.40 and 4.67 and were unimodally distributed. Some of the highest ranked values, such as family and love, and lowest ranked values had skewed, or lopsided, distributions (meaning that many people endorsed them as important or unimportant, respectively). There was substantial agreement on the relative importance of some of the values, and these values tended to have leptokurtic distributions with most of the rankings clustering around a few rank scores.

Examples of the leptokurtic distributions are family and love, which tended to be almost universally ranked high, and aesthetics, which tended to be ranked low. The interesting exception was spirituality, which had a U-shaped distribution and a fairly large variance, indicating a significant difference in how people responded when asked to rank this value. Specifically, although more than 23% ranked spirituality first in importance, a significant number ranked it last in importance, and the least common rank score was in the middle, at 10. According to the data, spirituality, defined as oneness with God and religious beliefs, tended to be a value that people either wanted or rejected.

The mean and median scores for each of the operational values for the normative sample are shown in Table 2, in ascending mean rank order, along with the standard deviation, the highest and lowest scores achieved, skewness, and kurtosis. The most important operational value was honesty. It was followed in importance by accountability, loyalty, competency, and fairness. The least important operational value in the normative sample was obedience. Both obedience and honesty had small variances and leptokurtic distributions, indicating that most of the rank scores clustered around a few values at the low and high ends of the importance continuum. Affection and autonomy were the two operational values with the most variability in importance.

**Table 2. VAL Operational Values Descriptive Statistics**

Operational Values	Mean Rank Score	Median Rank Score	<i>SD</i>	Highest Rank Score	Lowest Rank Score	Skewness	Kurtosis
Honesty	4.22	3	3.74	1	21	1.41	1.54
Accountability	7.04	6	4.38	1	21	.75	-.18
Loyalty	8.34	7	5.03	1	21	.52	-.74
Competency	8.59	8	4.17	1	21	.32	-.64
Fairness	8.86	8	4.39	1	21	.36	-.58
Affection	9.43	9	6.03	1	21	.23	-1.21
Knowledge	9.82	10	5.13	1	21	.18	-.94
Autonomy	10.36	11	5.77	1	21	.01	-1.16
Flexibility	10.88	11	4.18	1	21	.07	-.58
Reason	10.92	11	4.91	1	21	.02	-.90
Drive	11.07	11	5.12	1	21	-.03	-.98
Courtesy	11.26	11	4.85	1	21	-.06	-1.01
Tolerance	11.42	11	4.43	1	21	-.06	-.73
Creativity	12.11	13	5.43	1	21	-.25	-.93
Discipline	12.18	13	5.17	1	21	-.23	-.96
Service	12.58	13	4.53	1	21	-.28	-.71
Forgiveness	12.64	13	5.20	1	21	-.42	-.80
Order	13.69	14	5.08	1	21	.47	-.77
Humor	13.75	15	5.34	1	21	-.52	-.69
Courage	13.86	15	5.64	1	21	-.58	-.80
Obedience	17.91	19	3.82	2	21	-1.49	1.89

***Gender Differences***

There were significant differences between the value rankings of men and women for some values. Table 3 shows the life value rank scores for males and females separately and reports the size of the difference where significant. On average, males ranked achievement, adventure, fame, power, and wealth higher than did females. Females averaged significantly higher life value rank scores for aesthetics, fellowship, happiness, health, love, nature, peace,

self-worth, social service, and wisdom. The greatest mean differences were for adventure and power, with rank scores for these life values averaging about two points higher for men. The greatest mean difference in the other direction was for peace, with women ranking peace higher than men did.

**Table 3. Gender Differences in Life Values Rankings**

Life Values	Mean Rank Score	Mean Rank Score	Ranked Higher by Gender	t-value	Difference in Score
	Males	Females			
Achievement	8.47	9.33	Males	-7.43	0.87
Adventure	13.95	16.01	Males	-14.93	2.06
Aesthetics	17.72	16.65	Females	9.50	1.06
Community	15.83	15.95			
Equality	4.57	4.20			
Fame	16.38	16.94	Males	4.44	0.57
Family	4.07	4.16			
Fellowship	9.40	8.70	Females	6.01	0.70
Freedom	8.16	8.33			
Happiness	6.98	6.69	Females	2.69	0.29
Health	6.74	6.25	Females	3.94	0.50
Love	5.79	4.93	Females	7.10	0.86
Nature	15.90	15.22	Females	5.54	0.68
Peace	11.59	10.26	Females	9.98	1.33
Pleasure	12.35	12.56			
Power	14.82	16.78	Males	-14.36	1.96
Self-Worth	6.67	5.72	Females	8.06	0.96
Social Service	14.18	13.10	Females	8.30	1.08
Spirituality	9.95	10.02			
Wealth	14.17	15.30	Males	-8.39	1.13
Wisdom	7.41	7.79	Males	-3.25	0.38

*Note.* All reported t-values were significant,  $p < .01$ .

Table 4 shows the operational value rank scores for males and females and the size of the difference where significant. With the exception of loyalty and order, there were significant differences between men and women for all the operational values. In general, women ranked affection, tolerance, forgiveness, service (helpfulness), courtesy, flexibility, humor, fairness, accountability, honesty, and autonomy higher than men did. Men ranked discipline, reason, courage, drive, obedience, knowledge, competency, and creativity higher than did women.

**Table 4. Gender Differences in Operational Values Rankings**

Operational Values	Mean Rank Score	Mean Rank Score	Ranked Higher by Gender	t-value	Difference in Score
	Males	Females			
Accountability	7.30	6.63	Females	4.97	0.67
Affection	10.52	7.73	Females	15.34	2.79
Autonomy	10.52	10.11	Females	2.26	0.41
Competency	8.33	9.01	Males	-5.23	0.68
Courage	13.02	15.18	Males	-12.92	2.16
Courtesy	11.76	10.46	Females	8.60	1.30
Creativity	11.95	12.36	Males	-2.36	0.41
Discipline	11.06	13.93	Males	-18.73	2.87
Drive	10.32	12.23	Males	-12.12	1.92
Fairness	9.15	8.41	Females	5.48	0.74
Flexibility	11.24	10.32	Females	7.06	0.92
Forgiveness	13.32	11.58	Females	10.79	1.74
Honesty	4.39	3.95	Females	3.74	0.44
Humor	14.11	13.20	Females	5.48	0.91
Knowledge	9.29	10.65	Males	-8.50	1.36
Loyalty	8.23	8.51	—	—	—
Obedience	17.37	18.76	Males	-12.43	1.39
Order	13.59	13.86	—	—	—
Reason	9.96	12.43	Males	-16.49	2.47
Service	13.19	11.63	Females	11.14	1.56
Tolerance	12.33	9.98	Females	17.50	2.35

Note. All reported t-values were significant,  $p < .01$ .

## Age Cohort Differences

To analyze differences among age groups, the normative sample was divided into four age cohorts (Golden, 2001): ages 18–25, 26–35, 36–50, and 51–79. Table 5 shows the mean age cohort differences in rank scores of life values based on a one-way analysis of variance (ANOVA) with post-hoc multiple-range tests.

**Table 5. Age Cohort Differences in Life Values Rankings**

Life Values	Mean Rank Scores				F Ratio (df = 3, 4251)	Multiple range tests (Tukey-HSD, p<.05)
	(1) 18–25 years old	(2) 26–35 years old	(3) 36–50 years old	(4) 51–79 years old		
Achievement	8.73	8.52	8.92	9.20	4.55	(2) > (3) & (4)
Adventure	12.67	14.78	15.68	16.53	135.33	(1) > (2) > (3) > (4)
Aesthetics	17.94	17.47	17.13	16.29	27.65	(4) > (3) > (1) > (2)
Community	15.08	16.10	16.17	16.24	30.75	(1) > (2), (3) & (4)
Equality	10.26	10.64	10.38	10.25	NS	No difference
Fame	17.52	16.42	16.24	15.93	28.90	(1) < (2), (3) & (4)
Family	4.63	3.75	3.85	4.31	16.58	(2) & (3) > (1) & (4)
Fellowship	8.65	8.97	9.42	9.65	13.78	(1) & (2) > (3) & (4)
Freedom	7.59	8.31	8.56	8.80	16.40	(1) > (2), (3) & (4)
Happiness	6.97	6.21	6.97	7.59	20.85	(2) > (1), (3) & (4) (4) < (2), (3) & (1)
Health	7.77	6.57	6.08	5.21	66.95	(4) > (3) > (2) > (1)
Love	5.38	5.17	5.50	5.95	4.79	(1) & (2) > (3) & (4)
Nature	15.16	16.04	15.74	15.66	9.88	(1) > (2) & (3)
Peace	12.18	11.19	10.50	10.09	44.73	(4) & (3) > (2) > (1)

Life Values	Mean Rank Scores				F Ratio (df = 3, 4251)	Multiple range tests (Tukey-HSD, p<.05)
	(1) 18–25 years old	(2) 26–35 years old	(3) 36–50 years old	(4) 51–79 years old		
Pleasure	11.80	11.83	12.79	13.87	48.16	(1) & (2) > (3) > (4)
Power	14.93	15.48	15.94	16.13	13.82	(1) > (2) > (3) & (4)
Self-Worth	7.17	6.26	5.88	5.72	3056	(4) & (3) > (2) > (1)
Social Service	13.44	14.18	13.91	13.24	9.16	(4) & (1) > (3) & (2)
Spirituality	10.27	10.48	9.79	8.90	6.41	(4) > (1) & (2)
Wealth	15.27	13.94	14.48	14.72	16.64	(2) > (3) & (4) > (1)
Wisdom	8.02	7.95	7.24	6.75	21.66	(4) > (3) > (2) & (1)

The age group of 18–25 years included 1,169 members comprising 27.4% of the sample. In terms of life stage, this cohort reflected the years of college and early work experience, the age of setting out on one’s own and establishing financial and emotional independence from one’s family of origin. The 18–25 age group had significantly higher rank scores for freedom, adventure, power, community, and nature. They had significantly lower rank scores for health, peace, wealth, and fame. Combined with the 26–35 group, the 18–25 group had significantly higher rank scores for love, fellowship, and pleasure; they had significantly lower scores for wisdom compared to the older age groups and significantly lower scores for spirituality compared to the over-50 age group.

The 26–35 age group reflected the life stage of early establishment of career and family life. This cohort included 1,005 members comprising 23.5% of the sample. This age group had the highest mean rank scores for achievement, happiness, and wealth. Some of the differences in value priorities seen in this group may be attributable to youth, such as the characteristically lower value placed upon health and the higher value placed upon freedom and adventure. Other differences, such as the higher value placed upon nature, might be attributable to generational differences.

The 36–50 age group was the largest cohort, with 1,543 members comprising 36.2% of the sample. People in this age cohort were likely to be in the later establishment stage for both their careers and families. Some were likely experiencing some midlife transitions and some were beginning to enter midlife. The 36–50 group tended to achieve intermediate scores between the younger and older age groups. They shared with the 26–35 group the highest concern for family—close relations and support of loved ones—as an important life value. This finding is not surprising considering that these individuals as a group were still in their child-raising years. They also shared with the 26–35 age group a significantly lower ranking for the importance of social service. Like the over-50 cohort they placed higher importance

upon self-worth and peace and less importance upon love, freedom, achievement, fellowship, and power. Also similar to the 51–79 age group, they placed intermediate importance on wealth. The 18–25 group ranked wealth lower in importance than the 36–50 group, while the 26–35 group had an average wealth rank score about half a point higher.

The last age group spanned ages 51–79 and included 538 members comprising 12.6% of the sample. Most ( $n = 497$ ) were under age 65. This age cohort was in midlife or entering their early retirement years, when typically the last of the children had left home, careers were at their highest point in earnings and responsibility, and other concerns such as health and retirement were beginning to gain in importance. The 51–79 age group had significantly higher rank scores for health, wisdom, and aesthetics. In addition to the mean scores they shared in importance with the 36–50 group, they shared in importance a concern for social service—contributing to the welfare of others—with the youngest (18–25) age group. On the other hand, they differed from the younger age cohorts by having the lowest mean rank scores for adventure, community (being active in social and civic groups), fame, pleasure, and happiness.

It is noteworthy that many of the life values showed significant linear trends. For example, the importance placed upon health, aesthetics, self-worth, and peace increased with age, while the importance placed upon adventure, pleasure, and power decreased with age.

Table 6 shows the mean age-cohort differences in rank scores of operational values based on a one-way ANOVA with post-hoc multiple-range tests.

**Table 6. Age-Cohort Differences in Operational Values Rankings**

Operational Values	Mean Rank Scores				F Ratio (df = 3, 4251)	Multiple range tests (Tukey-HSD, p<.05)
	(1) 18–25 years old	(2) 26–35 years old	(3) 36–50 years old	(4) 51–79 years old		
Accountability	8.73	6.49	6.24	6.64	86.83	(1) < (2), (3) & (4)
Affection	9.48	9.35	9.51	9.18	NS	—
Autonomy	10.27	10.57	10.36	10.13	NS	—
Competency	9.50	8.32	8.07	8.60	28.41	(1) < (2), (3) & (4)
Courage	10.56	15.21	15.14	14.87	212.77	(1) > (2), (3) & (4)
Courtesy	11.60	10.70	11.27	11.57	7.04	(2) > (1), (3) & (4)
Creativity	12.96	12.45	11.65	10.92	23.56	(4) > (3) > (2) & (1)
Discipline	10.92	12.36	12.67	13.17	35.59	(1) > (2), (3) & (4); (1) > (4)
Drive	10.51	10.79	11.28	12.16	14.83	(4) < (1), (2) & (3); (3) < (1)
Fairness	9.36	8.87	8.60	8.52	7.90	(1) < (3) & (4)
Flexibility	12.10	10.89	10.36	9.78	56.00	(4) > (3) > (2) > (1)
Forgiveness	13.00	13.00	12.53	11.53	11.84	(4) < (1), (2) & (3)
Honesty	4.83	4.10	3.92	3.98	14.67	(1) < (2), (3) & (4)
Humor	12.51	13.68	14.47	14.52	34.80	(1) > (2) > (3) > (4)
Knowledge	9.59	9.76	9.94	10.11	NS	—
Loyalty	7.25	8.15	8.99	9.20	33.37	(1) > (2) > (3) > (4)
Obedience	16.82	18.09	18.37	18.67	49.13	(1) > (2), (3) & (4); (2) > (4)
Order	14.66	13.34	13.21	13.62	20.52	(1) < (2), (3) & (4)
Reason	10.55	10.66	11.11	11.67	8.15	(1) > (3) & (4); (2) > (4)
Service	13.49	12.64	12.12	11.81	26.39	(4) & (3) > (2) > (1)
Tolerance	12.30	11.52	11.10	10.23	31.74	(4) > (3) & (2) > (1)

The 18–25 group had significantly higher rank scores for courage, discipline, humor, loyalty, obedience, and reason. They had significantly lower rank scores for accountability, competency, fairness, flexibility, honesty, order, and tolerance. Combined with the 26–35 group, the 18–25 group had significantly lower rank scores for the importance of creativity when compared to the older age groups. The 26–35 age group had the highest mean rank score for courtesy. As with the life values, some of the differences in operational value priorities might be attributable to youth, such as the higher value placed upon courage and the lower value placed upon accountability, order, and tolerance. Other differences might be attributable to generational differences.

The 36–50 age group and the over-50 cohort shared a higher importance placed upon fairness and service and a lower importance placed upon humor and loyalty than other age cohorts. Like the 26–35 age cohort, they placed intermediate importance on tolerance.

The 51–79 age group ranked flexibility and tolerance significantly higher in importance than the younger groups and ranked discipline significantly lower. They gave the highest endorsement to service, or helpfulness, as an important way of living, but they also ranked forgiveness the lowest of any age group.

## **Technical Properties of the VAL**

### **Reliability**

The reliability of an assessment tool refers to the consistency of scores obtained under the theoretical concept of the repeated testing of the same individual on the same test under identical conditions (including no changes to the individual). Because in practice this can never be done, reliability is estimated. Given the VAL's format, which requires the ranking of values, an appropriate reliability estimate is the relative consistency with which the values can be ranked. This estimate is represented by the ranking consistency score, which indicates how consistently an individual ranked the various values each time they were presented in the survey. Ranking consistency scores can range from 0–100 with scores below 70 indicating low consistency, 70–89 acceptable consistency, and 90 and above high consistency.

In the normative sample investigated by Golden (2001), the mean ranking consistency score for life values was 92.8 ( $SD = 7.7$ ), and the median was 94.8. The mean ranking consistency for operational values was 87.0 ( $SD = 11.0$ ), and the median was 90.1. Ranking consistency scores below 70 were encountered 2% of the time for life values and 7% of the time for operational values. There were no significant differences in ranking consistency by education or race, but women and adults over 25 years old had somewhat higher ranking consistency scores than men and individuals 25 years old and under. Overall, the ranking consistency scores attained indicated that participants were able to consistently rank the values presented in the VAL survey, suggesting that the VAL's reliability is high.

### **Validity**

Validity refers to the effectiveness with which a test measures what it is intended to measure. One way of demonstrating evidence of validity concerns internal structure, whether or not constructs measured by the test correlate as expected. Another type of validity evidence concerns whether a measure correlates with other measures as expected. A third type of validity evidence concerns whether or not scores on a measure differ as expected between groups based on known characteristics of those groups. All three types of evidence are provided in this section, based on Golden (2001).

### ***Internal Structure***

Table 7 shows the correlations among the VAL life values and Table 8 shows the correlations among the VAL operational values. The pattern of correlations indicates that each of the values represented in the VAL survey correlates with other values in an expected manner, and at the same time, each value reflects a separate, independent construct. For example, within the set of life values, a strong correlation was observed between power and fame ( $r = .49$ ). However, the average correlation was  $-.05$ . Similarly, within the set of operational values, a strong correlation was observed between forgiveness and competency ( $r = -.44$ ), and the average correlation was  $-.05$ .

**Table 7. Intercorrelations Among Life Values**

	Ach	Adv	Aes	Com	Equ	Fame	Fam	Fell	Fre	Hap	Hea	Lov	Nat	Pea	Ple	Pow	Sel	Soc	Spi	Wea
Achievement																				
Adventure	.20																			
Aesthetics	-.10	-.03																		
Community	-.19	-.07	.05																	
Equality	-.20	-.21	-.06	.13																
Fame	.35	.10	-.06	-.22	-.27															
Family	-.16	-.23	-.27	.02	.03	-.20														
Fellowship	-.17	-.07	.00	.18	-.04	-.16	.15													
Freedom	-.02	.12	.06	-.12	.13	-.11	-.19	-.12												
Happiness	.00	.04	-.11	-.23	-.26	.01	.06	.05	-.11											
Health	-.05	-.15	-.12	-.18	-.06	-.08	.12	-.14	-.04	.06										
Love	-.28	-.21	-.05	-.04	-.13	-.22	.33	.20	-.18	.14	-.03									
Nature	-.27	-.05	.14	.05	.18	-.30	-.06	-.02	.09	-.09	.00	-.01								
Peace	-.40	-.38	.05	.06	.36	-.34	.07	-.06	.04	-.09	.03	.10	.25							
Pleasure	.03	.26	-.06	-.20	-.34	.10	-.06	.05	-.04	.48	-.03	.04	-.09	-.23						
Power	.40	.27	-.17	-.16	-.27	.49	-.23	-.24	-.03	-.08	-.10	-.29	-.33	-.43	.07					
Self-Worth	.11	-.14	-.06	-.12	-.08	.02	-.04	-.04	-.06	-.01	.04	-.05	-.12	-.09	-.11	-.03				
Social Service	-.25	-.23	.02	.48	.27	-.26	.03	.13	-.12	-.26	-.19	.02	-.12	.18	-.31	-.30	-.07			
Spirituality	-.30	-.25	-.08	.08	.06	-.26	.09	-.07	-.18	-.26	-.08	.07	-.03	.17	-.34	-.22	-.08	.19		
Wealth	.30	.11	-.13	-.34	-.37	.45	-.12	-.20	-.07	.17	.09	-.14	-.28	-.36	.30	.46	-.03	-.45	-.30	
Wisdom	.17	-.07	.15	-.09	.00	.01	-.24	-.19	.04	-.19	-.03	-.17	-.09	-.07	-.24	.09	.06	-.07	-.02	-.04

**Table 8. Intercorrelations Among Operational Values**

	Acc	Aff	Aut	Com	Cou	Cre	Dis	Dri	Fair	Fle	For	Hon	Hum	Kno	Loy	Obe	Ord	Rea	Ser	Tol
Accountability																				
Affection	-.17																			
Autonomy	-.08	-.18																		
Competency	.17	-.36	.13																	
Courage	-.28	-.14	.09	-.07																
Courtesy	.05	.29	-.30	-.28	-.28															
Creativity	-.27	-.07	.19	.06	.08	-.26														
Discipline	.13	-.34	-.05	.14	.11	-.22	-.23													
Drive	.02	-.36	.18	.39	.13	-.36	.09	.29												
Fairness	.00	.05	-.15	-.21	-.17	.12	-.14	-.19	-.30											
Flexibility	-.03	-.10	.07	.03	-.14	-.09	.23	-.22	-.06	.05										
Forgiveness	-.12	.35	-.28	-.44	-.13	.24	-.12	-.31	-.45	.23	.06									
Honesty	-.25	.04	-.19	-.17	-.13	.14	-.23	-.05	-.21	.24	-.13	.11								
Humor	-.36	.24	-.02	-.19	.06	.07	.15	-.28	-.19	-.07	.01	.09	-.18							
Knowledge	-.18	-.23	.14	.21	.13	-.29	.17	.05	.15	-.19	-.11	-.27	-.17	-.03						
Loyalty	.07	.12	-.27	-.24	-.01	.16	-.31	.02	-.15	.04	-.21	.07	.21	-.10	-.23					
Obedience	.03	-.11	-.28	-.11	.03	.08	-.26	.26	-.05	-.11	-.20	.03	-.01	-.14	-.10	.21				
Order	.15	-.24	-.03	.26	-.15	-.09	-.18	.31	.22	-.23	-.16	-.32	-.13	-.21	.02	-.07	.15			
Reason	-.03	-.36	.08	.25	.05	-.29	-.03	.16	.18	-.07	-.10	-.33	-.09	-.13	.29	-.18	-.03	.17		
Service	.06	.16	-.22	-.18	-.26	.25	-.07	-.24	-.27	.08	.01	.22	.05	-.04	-.27	.05	.00	-.12	-.27	
Tolerance	-.04	.20	-.12	-.30	-.22	.18	-.04	-.32	-.35	.25	.22	.42	.01	.03	-.27	-.08	-.14	-.28	-.27	.26

### ***Correlations Between Values and Personality Type***

A modest but important relationship exists between the importance one places on certain values and one's personality. It has also been observed that there is a stronger relationship between one's operational values (i.e., the desirable modes of conduct for achieving one's life goals) and one's personality than between one's ultimate goals, or life values, and personality.

A summary of the relationships found to exist between the VAL and the Golden Personality Type Profiler (GPTP; Golden, 1999) appears next. The correlations provided are based on a sample of 774 cases collected by Golden (2001), predominantly from organizational consulting and management development programs.

The participants were adults ranging in age from 18–65 (mean = 36.9 years,  $SD = 9.8$  years). Fifty-six percent of the participants were males. Their years of formal education ranged from 9 years of school to more than 20 years, including college, graduate school, and postdoctoral study. By highest educational level attained, 1% had less than a high school diploma, 16% had a high school diploma, 21% had some college, 45% had a college degree, 17% had a master's degree, and 1% had a doctorate-level degree or postdoctoral-level training. Among those who reported their racial or ethnic identity, 88.2% were white, 5.3% were African American, 3.5% were Asian/Pacific Islander, and 3.1% reported being from other racial or ethnic groups.

As was expected from previous research relating to values and personality (Johnson & Coppola, 1990; Johnson, 1995), the size of the correlations found to exist between operational values and personality was larger than those generally found to exist between life values and personality. As shown in Table 9, the correlations were moderate to high in most cases and conformed to expectations. The highest correlations were found for the relationships between creativity and sensing/intuiting (i.e., people high in intuiting tended to value creativity,  $r = .57$ ); reason and thinking/feeling (i.e., people high in thinking tended to value reason,  $r = .59$ ); and order and organizing/adapting (i.e., people high in organizing tended to value order,  $r = .51$ ).

In order to estimate the amount of variance accounted for in one's operational value system by psychological type, a multiple regression was completed with each of the four dimensions of psychological type (E-I, S-N, T-F, and Z-A), which are represented as continuous variables within the GPTP model, as predictors for each operational value. The multiple R correlations ranged from a low of .21 to a high of .60, and the average across the 21 values was  $R = .395$ . The average amount of variance accounted for (R squared) was 15.6%.

**Table 9. Correlations of GPTP Global Scales and Operational Values (N = 774).**

Scale	Correlation
Sensing/Intuiting	—
Values:	—
Creativity	-.57
Thinking/Feeling	—
Values:	—
Reason	.59
Affection	-.44
Service	-.40
Tolerance	-.40
Forgiveness	-.37
Competency	.35
Drive	.35
Knowledge	.34
Organizing/Adapting	—
Values:	—
Order	.51
Flexibility	-.30
Creativity	-.30

*Note.* All correlations were significant at the .01 level. Positive numbers represent positive correlations with Pole 1 scales (e.g., thinking) and negative numbers represent positive correlations with Pole 2 scales (e.g., feeling).

As shown in Table 10, the correlations were relatively lower between personality characteristics and the life values. The highest correlation was found for the relationship between social service and thinking/feeling (i.e., people high in feeling tended to place importance on social service,  $r = -.40$ ).

**Table 10. Correlations of GPTP Global Scales and Life Values (N = 774).**

Scale	Correlation
Sensing/Intuiting	—
Values:	—
Aesthetics	-.22
Thinking/Feeling	—
Values:	—
Achievement	.32
Community	-.23
Love	-.27
Power	.32
Social Service	-.40
Wealth	.24
Wisdom	.26
Organizing/Adapting	—
Values:	—
Adventure	-.24

*Note.* All correlations were significant at the .01 level. Positive numbers represent positive correlations with Pole 1 scales (e.g., thinking), and negative numbers represent positive correlations with Pole 2 scales (e.g., feeling).

### ***Known Group Differences***

Expected differences between groups based on known characteristics of those groups can also provide evidence of the validity of a measure. The differences between gender and age groups reported previously in this guide provide evidence of this type of validity for the VAL. For example, the observed differences between males and females in ranking the importance of particular values were consistent with previous research on gender differences in personality type (e.g., Kroeger & Thuesen, 1992). Specifically, previous research suggests that more males tend to be classified as “thinking.” Thus, one would expect that on average, males would have provided higher rankings on the values that were correlated with the “thinking” personality dimension (e.g., achievement, power, wealth), as was the case. Likewise, previous research suggests that more females tend to be classified as “feeling.” Thus, one would expect that on average, females’ value rankings would correspond to values that were correlated with the “feeling” personality dimension (e.g., social service, love), as was the case.

Differences by age group also indicated that value rankings showed trends in expected directions. As described in more detail previously, trends indicated that the importance placed upon health, aesthetics, self-worth, and peace increased with age, while the importance placed upon adventure, pleasure, and power decreased with age.

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