The present study assessed university students' views on human nature according to a standard set of theoretical dimensions, namely free will vs. determinism, causality vs. teleology, uniqueness vs. similarity, conscious vs. unconscious, pessimism vs. optimism, and biological vs. social influences. Based on the responses from 618 introductory and personality psychology students, results showed that the typical student theory of human nature (a) endorsed free will and goodness in others, (b) advocated the uniqueness of individuals, and (c) recognized the influence of causality, unconscious forces, and social relationships on personality. Cluster analysis uncovered two main clusters of theories, partitioned according to their endorsement of social influence and unconscious determinism. The student theory was most similar to the theories of Erikson, Horney, and Dollard and Miller. These findings are comparable to those obtained using Finnish students. Limitations are outlined, and suggestions for future research are given.
Social Learning and Behaviourist, Biological, and Humanist and Existential (cf. Burger, 2003; Engler, 2003; Hergenhahn, Olson, & Cramer, 2003; McAdams, 2001; Monte & Sollof, 2003). For instance, trait theorists conceptualize the person as a conscious individual whose behaviour is largely determined by genetic factors, whereas humanist theorists conceptualize the person as a conscious individual with fewer genetic and deterministic influences. However, it is not uncommon for text authors to quantify the theoretical differences along various dimensions (Feist & Feist, 2002; Hall, Lindzey, & Campbell, 1998; Hjelle & Ziegler, 1976). For example, whereas Freud and Jung receive high ratings for their emphasis of unconscious influences, Maslow and Rogers do not; whereas Cattell and Eysenck receive high ratings for their emphasis of genetic influences, Bandura and Skinner do not.

Through data reduction techniques like factor and cluster analysis, researchers have classified as many as fifteen personality theorists into five or six theoretical families, whereby family membership is based on consistencies along various dimensions of human nature (Schuh, 1960; Taft, 1966). For example, Evans and Smith (1972) identified the following five clusters: (1) Self-analysis emphasis (Binswanger & Boss, Rogers, Goldstein, Angyal, Allport, Miller & Dollard, Cattell), (2) Psychoanalytic emphasis (Fromm, Horney, Adler, Freud), (3) Biological emphasis (Sheldon, Murray, Lewin, Freud), (4) Learning emphasis (Binswanger & Boss, Skinner, Miller & Dollard, Murray, Allport), and finally (5) unlabelled because it was not readily interpretable (Sullivan, Jung, Freud).

Later research (Campbell, 1980) specified six families by primarily grouping theorists into pairs: (1) Early development (Freud and Erikson); (2) emphasis on the unique organism (Murray, Rogers, Goldstein); (3) de-emphasis of the psychological environment (Skinner and Cattell), (4) de-emphasis of personality structure (Miller & Dollard and Binswanger & Boss), (5) self-concept or ideal-self (Horney and Angyal); and (6) uniqueness of individual focus (Allport, Eastern Psychology, Sheldon).

Indeed, the derivative clusters depend largely on which theorists are evaluated, and the specific dimensions used in the theoretical evaluations.

**Assessing Individual Philosophies of Human Nature**

The assessment of individuals’ unique personality theories is quite diverse, and includes (a) examining implicit personality theories, (b) predicting behaviour using one’s personal philosophy, and (c) constructing questionnaires to assess individual differences in perspectives of human nature. Implicit personality theories represent assumptions or naive belief systems about the associations among personality traits (Cheng & Hau, 2002; Chiu, Hong, & Dweck, 1997; Dweck, Hong, & Chiu, 1993; Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997; Erdley & Dweck, 1993; Leyens, 1991; Reeder, 1993; Schneider, 1973; Sedikides & Anderson, 1994; Silvera, Moe, & Iverson, 2000). Our implicit personality theories, while unscientific, are defined in terms of the categories used to describe people, the content and organization of these categories, and explanations for why people behave as they do (e.g., causal explanations and attributions). These theories are considered implicit because most people cannot organize them as part of a formal theory of personality.

Various dimensions of personal ideologies have been used to predict behaviour, including optimism (Scheier & Carver, 1985, 1992), pessimism (Peterson, Seligman, & Vaillant, 1988), sex differences in personality (Buss, 1991, 1994), goal-directed behaviour (Snyder, 1995), and genetic vs. environmental influences on personality (Bouchard, Lykken, McGue, Segal, & Tellegen, 1990; Eysenck & Eysenck, 1985; Loehlin, 1992; Plomin, 1994). For instance, Martin, Blair, Nevels, and Brant (1987) reported a nonsignificant relation between one’s philosophy of human nature and self-esteem. Furnham, Johnson, and Rawles (1985) demonstrated a strong relation between voting patterns and personal philosophy, whereby conservative voters tended to believe in genetic
determinism for psychological problems. Furthermore, de St. Aubin (1996) showed that individuals with highly humanistic personal ideologies (a) placed more emphasis on imagination, beauty, and broad-mindedness, (b) placed less emphasis on cleanliness and politeness, and (c) believed human nature is characterized by trustworthiness, altruism, complexity, and a politically liberal orientation.

Wrightsman (1992) has designed a useful inventory to assess one’s philosophy of human nature. The individual endorses 84 items on 6-point Likert scales from which six subscales are derived: trustworthiness, altruism, independence, strength of will and rationality, and both complexity and variability of human nature. The overall scale shows high retest reliability, (r = .90) and appropriate convergent and divergent validities. Although the scale has seen moderate use (de St. Aubin, 1996; Therdon & Strydom, 1996; Tobacyk & Milford, 1988; Weller & Benozio, 1987), the component subscales are not readily comparable to formal personality theories (e.g., Freud, Rogers, and Skinner).

Kalliopuska (1985) offers a solution to this problem by designing a questionnaire based on the same dimensions used by Hjelle and Ziegler (1976) to evaluate ten formal personality theories. Seventy-seven Finnish students enrolled in personality psychology endorsed their personal views of human nature according to eight dimensions: freedom vs. determinism, rationality vs. irrationality, constitutionalism vs. environmentalism, holism vs. elementalism, subjectivity vs. objectivity, proactivity vs. reactivity, homeostasis vs. heterostasis, and knowability vs. unknowability. Results showed neither sex nor age differences. Although there was relative independence among dimensions because of curvilinear distributions, there was a positive correlation between reactivity and both proactivity and subjectivity after accounting for inflated Type I error from multiple testing. On average, students viewed human nature as an holistically organized system largely beyond the reach of scientific investigation. Whereas outside environmental factors play a greater role than genetics, people make their own decisions by internal freedom, and there is an inherent need to grow and develop, test barriers, search for satisfaction, and attempt self-actualization. Although Kalliopuska notes that students’ views of human nature overlap with parts of several theories (e.g., Allport, Erikson, Freud, Kelly, Maslow, Murray), no empirical analyses were offered to actively align participants’ implicit theories with their formal theoretical neighbors.

Present Study

The present study offers a confluence of the theoretical and individualist streams in the empirical study of human nature. Whereas researchers have condensed the quantifications of formal theories into smaller sets of families (Evans & Smith, 1972; Campbell, 1980), and whereas researchers have assessed individuals’ implicit personality theories (Cheng & Hau, 2002; de St. Aubin, 1996; Kalliopuska, 1985; Scheier & Carver, 1992; Silvera et al., 2000; Wrightsman, 1992), no study has yet tested these two approaches simultaneously. This would permit the consideration of several important questions. For example, what is the common theory of personality, and where is it located within the comprehensive map of formal personality theory? Does this theory vary according to the individual’s sex or age? What is the fewest yet most comprehensive number of families into which formal personality theories can be clustered? Is the individual theory anti-Freudian, pro-Skinnerian, or moderately both? Although Wrightsman (1992) designed a scale to assess human nature, it is not readily amenable to comparison; and whereas Kalliopuska (1985) assessed students’ theories of personality based on Hjelle and Ziegler’s (1976) dimensions, no empirical comparison was made. The present study similarly designs a questionnaire consisting of six dimensions used by Feist and Feist (2002) to evaluate 19 formal personality theories, a relatively more comprehensive collection of perspectives. Using cluster analysis, a more comprehensive map of personality theory can be constructed which empirically assigns theories (including the typical individual
theory) to a manageable set of theoretical families.

Method

Participants

Six hundred and eighteen student volunteers (214 male, 401 female, and 3 unspecified) from three psychology undergraduate classes at a large Canadian university gave informed consent to participate for partial course credit. Participant age ranged from 17 to 48 years, with a mean of 20.3 years and a standard deviation of 4.2; a median split produced 342 participants (55%) aged 17 to 19 years and 275 participant (45%) aged 20 years or more. Academic major also varied within the sample: 30 students (5%) in fine arts, 70 (11%) in humanities, 159 (26%) in sciences, 162 (26%) in social sciences, 184 (30%) in other majors, and 13 (2%) unspecified. Finally, there were 345 (56%) students in their first year of university, 152 (25%) in their second, 72 (12%) in their third, 38 (6%) in their fourth, and 11 (2%) unspecified.

Materials and Procedure

With respect to formal theories, Feist and Feist (2002) provide dimensional ratings of the following 19 theorists: Adler, Allport, Bandura, Cattell & Eysenck, Dollard & Miller, Erikson, Freud, Fromm, Horney, Jung, Kelly, Klein, Maslow, May, Mischel, Rogers, Rotter, Skinner, and Sullivan. For each theorist, a 5-point Likert scale assessed the degree of endorsement for one of the two poles in the following six dimensions: Causality vs. Teleology (i.e., is behaviour best explained by past experiences or future goals and purposes), Pessimism vs. Optimism, Free Will vs. Determinism, Social vs. Biological, Unconscious vs. Conscious, and Uniqueness vs. Similarity (i.e., is the more salient aspect of a person his or her individuality or common characteristics). With respect to participants' implicit theory, the same six dimensional qualities were translated into single-item questions, again using a 5-point scale (see Appendix; we recognize that our instrument is not standardized, and internal consistencies cannot be established in single-item measures. However, we opted for this format on the basis of the face validity of the items, and the speed at which participants could endorse items). Participants completed the 6-item questionnaire on the first day of the fall semester, and were then debriefed as to the purpose and expected results.

Results

One respondent was excluded from analysis due to incomplete data (N = 617). For each of the six theoretical dimensions, means, standard deviations, and interdimensional correlations were derived for the total sample (see Table 1).

<table>
<thead>
<tr>
<th>Table 1. Means (Standard Deviations), and Interdimensional Correlations by Personality Dimension</th>
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<tbody>
<tr>
<td>Dimension</td>
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<td>Causality</td>
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<td>Pessimism</td>
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<td>Free Will</td>
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<td>Social</td>
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Note. N = 617; decimals have been removed.

The relatively small correlations among dimensions was similarly observed by Kalliopuska (1985) in a Finnish sample. A nonparametric means analysis showed that each dimensional mean was significantly different from the midpoint, z values between 5.00 and 9.00, ps <0.001. Specifically, the average implicit theory among this sample of students emphasized causality (not teleology), optimism (not pessimism), free will (not determinism), social (not biological) antecedents, and unconscious (not conscious) influences, and one's uniqueness from (not similarity to) others. Mann-Whitney nonparametric tests of group differences by age and sex showed only that males' average implicit theory emphasized unconscious motives significantly more than females', z = 2.78, p = 0.005. Following a 10-week interval, 116 participants again completed the questionnaire to derive retest reliability estimates of the six dimensions (rs >0.76).

The six dimensional ratings for each of the 19 formal theories and mean scores in students' implicit theory were entered in a cluster analysis (Everitt, 1993; Gordon,
which designates unique families or clusters of theorists to maximize the similarity of each member’s corresponding profile so intercorrelations among cluster members is high. Intertheory similarity can be quantified using squared Euclidian distances, graphically represented in a dendogram with theories on the side and linkage distances on the bottom (see Figure 1). The more similar the theories, the shorter the linkage distance. For example, the theories of Mischel and Rotter are quite similar and join quickly; only later do they join those of Bandura and Fromm, and far later do they join those of Adler through May. Based on algorithms outlined by Ward (1963) and the visual inspection of the dendrogram, two main clusters emerged, each further divided into two subclusters.

![Figure 1](image1.png)

*Figure 1*
Cluster analysis dendrogram based on theorists and linkage distances (theories with more similar dimensional profiles have earlier linkage distances).

The first cluster (Cluster-A) combined Maslow, May, Kelly, Rogers, Allport, Adler, Rotter, Mischel, Fromm, and Bandura. This cluster was further split into Subcluster-A1 (Maslow through Adler) and Subcluster-A2 (the remaining four theories). The second cluster (Cluster-B) combined Jung, Cattell and Eysenck, Freud, Dollard and Miller, Skinner, Sullivan, Klein, Horney, Erikson, and the implicit theory. This cluster was also split into Subcluster-B1 (Jung, Freud, and Cattell and Eysenck), and Subcluster-B2 (the remaining seven theorists). Cluster membership was plotted according to the two dimensions that neatly divided the clusters: Social Influence (along the x-axis) and Unconscious Determinism (along the y-axis; see Figure 2).

![Figure 2](image2.png)

*Figure 2*
Cluster plot of of theories based on social influence and unconscious determinism.

These four families can be better identified and interpreted using the two summary functions. To begin, members of Cluster-A generally had moderate to high scores on Social Influence. Within this family, members of subcluster-A1 (e.g., conscious, free-will theorists) had low scores on Unconscious Determinism, whereas members of subcluster-A2 (e.g., social learning theorists or social determinists) had moderate scores on Unconscious Determinism. Alternatively, members of Cluster-B generally had higher scores on Unconscious Determinism. Within this family, members of subcluster-B1 (e.g., biological determinists) had low scores on Social Influence, whereas members of subcluster-B2 (e.g., NeoFreudians plus Skinner) had moderate scores on Social Influence, essentially balancing the impact of social and biological antecedents.

With regard to students’ implicit theory, results showed that on average, students agreed with the viewpoints of other members of subcluster-B2 (i.e., Dollard and Miller, Klein, Erikson, Horney, Skinner, and Sullivan). Looking at similarity across Social Influence only, students agreed that people are best conceptualized as the product of both social and biological influences. Across Unconscious Determinism only, students agreed with Sullivan, Horney, Freud, and
Jung that people are largely unaware why they are who they are.

**Discussion**

The present study had four main goals: It (a) evaluated the typical implicit personality theory among a Canadian sample of university students, (b) assessed whether the student theory varied according to sex or age, (c) assessed the interrelation among dimensions of personality, and (d) compared the student theory to formal personality theories. Results showed that the student theory varied slightly depending upon its derivation with either a means or cluster analysis. Using a univariate means analysis, students in the present study believed that people in general are basically good, best understood in terms of their uniqueness from others, and have free will over their lives. Additionally, people are largely influenced by unconscious forces, and by both their past experiences and social relationships. The cluster analysis outlined a similar picture, although the role of both free will and personal uniqueness received less emphasis.

Furthermore, whereas males more strongly endorsed the influence of unconscious forces, no other sex or age differences were significant, suggesting relatively universal implicit personality theories within the sample. Yet because the correlations among personality dimensions were so small as to be considered unimportant, it may be concluded that the dimensions that comprise the student theory are largely independent from one another. This is a curious result, given that certain relations were expected in the student theory based on those found in formal theories. For instance, theories that acknowledge the influence of past experience (causality) tend not to endorse free will. Whereas that relation was highly significant among formal theories ($r = -.88$), it was not significant in the student theory ($r = -.02$). Perhaps if individuals are presented with the ramifications of their dimensional inconsistencies, they may change their dimensional endorsements; however, it may be precisely for these reasons that individuals’ personality theories remain chiefly implicit.

Finally, with the goal to locate the student theory among the theoretical map of formal personality theories, the cluster analysis identified two main theoretical divisions: The first division (consisting of Cattell and Eysenck, Dollard and Miller, Erikson, Freud, Horney, Jung, Klein, Skinner, Sullivan, and the student theory) more strongly emphasized determinism, causality, and unconscious motives compared to members of the other division (consisting of Adler, Allport, Bandura, Fromm, Kelly, Maslow, May, Mischel, Rogers, and Rotter). The first division was partitioned into two subdivisions, whereby members of the first subdivision (consisting of Jung, Freud, and Cattell and Eysenck) advocated a position that was more pessimistic and endorsed fewer social influences compared to the position of the remaining theories (consisting of Dollard and Miller, Erikson, Horney, Klein, Skinner, Sullivan, and the student theory). The second division was similarly partitioned into two subdivisions, whereby members of the first subdivision (consisting of Adler, Allport, Kelly, Maslow, May, and Rogers) advocated less social influence compared to the remaining theories (consisting of Bandura, Fromm, Mischel, and Rotter).

It is useful to juxtapose the present findings with those of Kalliopuska (1985), who assessed similar dimensions among Finnish university students. In the latter sample, students endorsed a view of human nature consisting of subjectivity, holism, proactivity, and unknowable influences. The last three dimensions correspond roughly to the dimensions of uniqueness, free will, and unconscious motives, respectively. Like the present study, there were no significant differences according to age and sex. Kalliopuska also draws several comparisons between the Finnish students’ personality theory and the formal theories of Allport, Kelly, Freud, Adler, and Erikson, several of whom were empirically grouped with the personality theory of Canadian students. Overall, the Canadian students agreed with both Adler and Freud for their endorsement of unconscious influences, and agreed with Allport, Erikson, and Kelly for their endorsement of social influences. However,
the student theory was closely related to those of Erikson, Dollard and Miller, and Horney, largely because these theories advocated multifaceted conceptualizations of personality. As Ryckman (2000, p. 212) notes,

“Erikson’s work has also been popular with students and other members of the general public; it increases their understanding of the kinds of stresses they are likely to experience at a given stage in their lives, and provides recommendations for relieving those stress so that positive growth can be achieved.”

That Canadian and Finnish students provided similar personality theories may suggest the presence of cross-cultural commonality in philosophical perspectives of human nature (Cheng & Hau, 2002). As Kalliopuska notes, people in a single culture learn to make similar interpretations about the meaning of behaviours and attitudes, much like Kelly’s (1955) notion of commonality in personal constructs.

However, cross-cultural similarities may be limited geographically to relatively proximate locations, whereby one might expect more conspicuous differences between Western and Eastern cultures. It would be useful to locate the theoretical position of a specific culture or population within the map of formal personality theories.

Interpretation of the present findings must be cautioned in light of the methodological limitations. The present sample consisted of university students -- a sample of convenience who in many ways are not representative of the population in general. In addition, the cluster analysis assigned equal weight to each of the six dimensions. This may be reasonable as a general assumption, but becomes problematic on examination of individual theories (i.e., a specific theorist may stress one dimension of personality more than others). For example, whereas Allport envisioned the human being as basically good and healthy, consciously motivated, but especially emphasized the role of one’s uniqueness from others. Finally, the creation of a theoretical map of personality theorists rests on the assumption that the dimensional ratings for each theorist are accurate and complete. Indeed, researchers may disagree as to how certain theorists should be scored on certain dimensions (e.g., Skinner’s position on whether we understand the reasons why we behave as we do).

The results from the present study invite several future investigations. It may be worthwhile for researchers to explore and compare implicit beliefs about human nature from different samples (e.g., students from different universities, elementary school children, and senior citizens). Researchers may wish to test for differences among members of distinct socioeconomic classes, age groups, and cultures or subcultures. Furthermore, it may be fruitful to explore the relative weight of dimensions in students’ philosophies of human nature. By rank ordering each dimension, one may derive a relative weight to the importance of each dimension. Finally, given that psychotherapy involves the adoption of any of a number of philosophical positions on human nature in the solution of adjustment problems, researchers may wish to determine the extent to which one’s implicit theoretical assumptions of personality predict how a client responds either to a particular style of therapy or method of personality assessment, such as Freudian free-association, Rogerian client-centered therapy, or Kelly’s Role Construct Repertory Test.

Author Note
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References
Cheng, Z., & Hau, K. (2002). Do those who believe intelligence to be unchangeable also think that personality is nonmalleable?


Appendix

Human Nature Questionnaire

Directions: For the six items below, answer each honestly by selecting one of the five options based on the scale provided. Do not think too long on any one item; if in doubt, select the first answer that comes to mind.

1. Is one’s personality better explained by understanding one’s past experiences or future goals?
   Past Experiences | 1 2 3 4 5 | Future Goals

2. Are people basically good or evil?
   Good | 1 2 3 4 5 | Evil

3. Is one’s personality more a function of one’s personal choices or determined by factors outside one’s control?
   Personal Choices | 1 2 3 4 5 | Outside Factors

4. To what extent is one’s personality a function of one’s social relationships?
   Not at all | 1 2 3 4 5 | To a great extent
5. To what extent do people know the reasons why they are who they are?
Not at all | 1 2 3 4 5 | To a great extent

6. Which is more important: understanding what makes us similar or what makes us different?
Similar | 1 2 3 4 5 | Different