The relationship between birth order and how a person deals with death is investigated. Both theoretical and empirical evidence indicates that birth order influences how a person deals with life tasks. First-borns appear more achievement-oriented than their younger siblings, as exemplified by the fact that disproportionately greater numbers of first-borns have been found among eminent men. A strong achievement orientation appears to presuppose considerable concern with plans, goals, possibilities and projects, all of which require a future-oriented consciousness. One's personal death is the future event which is the boundary for all achievement. It was hypothesized that, because of their achievement/future orientation, first borns would show greater death threat than either middle borns or last borns on the Threat Index. Also, it was hypothesized that first borns would consciously report less concern with death when answering questions directly assessing death concerns. College student volunteers (66 males and 52 females), mean age 22.1 years, were administered the Threat Index (Hays, 1974) and the Death Concern Scale (Dickstein, 1972). As predicted, first borns showed a greater mean Threat Index Score than either the middle born group or the last born group. The first born group recorded the smallest mean Death Concern Scale score followed by the middle born group, then by the last born. As hypothesized, first borns, relative to middle borns and last borns, demonstrated greater death threat on the Threat Index as well as significantly less death concerns on the Death Concern Scale. Thus a pattern emerged for first borns as being more threatened by death and as avoiding death-related issues. Findings are consistent with the notion that birth order, through its impact upon the formulation of life style, may influence the manner in which the individual deals with death. (Author/PJC)
ORDINAL POSITION AND DEATH CONCERNS.

Daniel Eckstein   Jerome Tobacyk
Louisiana Tech University

The authors would like to acknowledge the stenographic assistance of Joyce M. Roberts, Linda P. Reddell and the editorial revisions of Judy P. Eckstein in this study. Request reprints from the first author, Louisiana Tech University, Ruston, LA 71272.
According to Adler (1964), the life tasks emphasize three areas of functioning—work, society, and sex. Mosak & Dreikurs (1977) have suggested two other life tasks—self acceptance and the ontological quest. The ontological quest includes a person's confrontation with one's own mortality.

Further, according to Adler (1964), birth order has a profound impact on how a person resolves the life tasks. The present investigation concerns the relationship between birth order and how a person deals with death-related issues which are included in the ontological life task.

One major finding in the birth order literature is that first-borns appear more achievement oriented than their younger siblings (Altus, 1966; Zajonc & Markus, 1975). For example, disproportionately greater numbers of firstborns have been found among eminent men (Ellis, 1904); among those whose pictures appeared on Time Magazine covers (Toman & Toman, 1970); among psychologists (Roe, 1943); among "Who's Who" entries (Ogburn, 1930); and among military leaders (Herrell, 1972). Further, firstborns were reported to show greater educational success and fewer academic problems (Adams, 1972; Schachter, 1949).

Thus, one core component of the life style of firstborns appears to be a strong achievement orientation. A strong achievement orientation, requiring considerable concern with plans, goals, possibilities and projects, may demand a future oriented consciousness.

The consciousness of the firstborn, through concern with achievement, may be strongly directed toward the future. Conversely, the
consciously of less achievement-oriented persons, tending not to emphasize future plans, goals, and possibilities to the same degree, may be less directed toward the future.

One's personal death is the one certain, but indefinite, future possibility (Heidegger, 1962). The firstborn, achievement-oriented person, whose consciousness is directed toward the future, may be phenomenologically "closer" to the possibility of personal death than a person for whom the future has less existential significance. The inevitability of death may be more salient to the future-oriented firstborn and, therefore, death may be more threatening. If one's consciousness is less directed toward the future, then death (a future possibility) may be experienced as phenomenologically more "distant."

Hypotheses

It is hypothesized that, given their achievement/future orientation, firstborns will show greater death threat than either middle-borns or last-borns. This hypothesized "greater death threat" for firstborns is expected to be demonstrated by a higher score on the Threat Index (Hays, 1974), an indirect measure of death threat, and by a smaller percentage of firstborns enrolling in death education classes than in control (non-death related) classes.

Further, due to this theoretically greater death threat, firstborns are hypothesized to consciously avoid death related issues and therefore to report less concern with death when answering questions.
directly concerning their attitudes about death. Thus, it is hypothesized that firstborns would record smaller scores than middle-borns or last-borns on the Death Concern Scale (Dickstein, 1972).

METHOD

Subjects

One hundred and eighteen college students (66 males and 52 females), mean age 22.1 yrs., comprised the sample. Subjects were volunteers recruited from two introductory psychology courses, two death education courses, and one personal adjustment course.

Procedure

Two self-report assessment instruments were administered during the first week of classes, the Threat Index (Hays, 1974) and the Death Concern Scale (Dickstein, 1972).

Instruments

The self administered form of the Threat Index was employed as the measure of death threat (Hays, 1974). The Threat Index is a list of 40 bipolar constructs (meaning dimensions e.g., "good-bad"). The subject records which pole of each bipolar construct applies to: self, ideal self, and "your own death."

The score is the number of constructs applied differently when describing "self" and "your own death". A separate score, similarly computed but based upon "ideal self" and "your own death" was not used here.
The rationale for this instrument is based upon Kelly's Personal Construct Theory (1955) which postulates that man construes the world through a system of personal constructs. In this theory, threat is conceptualized as the experience of a relatively large re-organization becoming imminent in one's personal construct system. The greater the score on the Threat Index, the less similarly the person construes "death" and "self", indicating greater personal construct re-organization necessary to accept death as a personal reality. The greater the construct re-organization necessary, the greater the potential death threat.

Hays (1974) reported a test-retest reliability of .84 for the Threat Index, while Rainey and Epting (1977) provide evidence for construct validity.

The Death Concern Scale is a 30-item self-report questionnaire, which is conceptualized as measuring the degree to which one consciously confronts death and is disturbed by its implications (Dickstein, 1972). Dickstein (1972, 1975, 1978) provides information concerning construct validity and reports test-retest and split half reliabilities of at least .86.

RESULTS

It was hypothesized that firstborns would show greater death threat, as evidenced by higher scores on the Threat Index, than either middle-borns or last-borns. As predicted, firstborns showed a greater mean Threat Index Score ($M = 17.9$) than either the middle-born group ($M = 13.6$) or the last-born group ($M = 13.3$). A one way ANOVA performed on the Threat Index scores showed a non-significant trend due to Birth Order
Group (firstborns, middle-borns, and last-borns), with $F_{2,115} = 2.31$, $p < .10$. The magnitude of this difference was significant for the firstborn vs last-born group means ($t_{55} = 2.05$, $p < .05$), but not for the firstborn vs middle-born group means. Thus, the firstborn group, showed Threat Index Scores indicative of greater death threat than either middle-born or last-born groups.

It was hypothesized that a smaller percentage of firstborns would enroll in death education courses than in control courses. To test this hypothesis, two groups were formed. In Group I (the death education group) were subjects enrolled in the two death education courses. In Group II (the control group) were subjects enrolled in the two introductory psychology courses. The Personal Adjustment class was excluded due to the unique nature of their subject matter.

Table 1 lists the number and percentage of subjects in each of the three birth order groups (firstborns, middle-borns, last-borns) for Groups I and II.

As indicated in Table 1, only 7% of the subjects in Group I were firstborns, while 15% of those in Group II were firstborns. This difference, although in the hypothesized direction, was not statistically significant ($Z = -1.14$).

It was also hypothesized that firstborns would report less conscious death concern, indicated by smaller Death Concern Scale scores, than either the middle-born or the last-born groups. An inspection of birth order group means in Table 2 provides support for this hypothesis.
The firstborn group recorded the smallest Death Concern Scale mean score ($M = 65.8$), followed by the middle-born group ($M$ and then by the last-born ($M = 76.1$). A one way ANOVA performed on the Death Concern Scale scores showed a significant main effect due to birthorder group. ($F_{2,115} = 3.98, p < .05$). The comparison of Death Concern Scale group means between the firstborn and the middle-born group and between the firstborn and the last-born group were statistically significant. The obtained statistics were, respectively, $t_{74} = 2.12 (p < .05)$ and $t_{55} = -2.94 (p < .01)$. Thus, the firstborns recorded significantly smaller Death Concern Scale scores than either the middle-borns or the last-borns.

**DISCUSSION**

As hypothesized, it was found that firstborns demonstrated greater death threat, on the Threat Index and by perhaps avoiding enrollment in death education courses. Firstborns also consciously reported significantly less concern about death on the Death Concern Scale than either middle-borns or last-borns. Thus, a pattern emerged for firstborns being more threatened by death and as perhaps avoiding death-related issues more than either middle-borns or last-borns. This pattern of evidence is consistent with the notion that the life style of firstborns, characterized by achievement concerns, is strongly directed toward the future. Firstborns, due to their future-directed consciousness,
may experience a phenomenological juxta-position of their own death and their achievement strivings. These findings are consistent with Dickstein & Blatt's (1966) report that persons recording lesser conscious death concern on the Death Concern Scale showed significantly greater extension into the future on a measure of future time perspective.

Another observation is that firstborns, with their achievement and success strivings, may, typify Becker's (1973) "god-worm paradox," the ultimate existential dilemma of man's great potential, but of inevitable death and decay. Since some firstborns may have already experienced a "mini-death" in their dethronement by the birth of another sibling, compensation for such a "mini-death" could include denying the inevitability of their personal mortality while affirming their life through achievement and success strivings.

In summary, the present findings are consistent with the notion that birth order, through its impact upon the formulation of life style, may influence the manner that the individual deals with death. It may be productive to further study the differential phenomenology of persons as related to birth order. Birth order appears to be a useful "tracer element" in exploring individual differences in the experiences of fundamental existential structures including death, time, mood and social relations. Further investigations might explore larger samples in which more precise analyses of birth order might be made, such as differentiating firstborns as to only-borns and firstborns with siblings.
### Table 1
Number and Percentage of Subjects in Each of the Three Birth Order for Groups I and II

<table>
<thead>
<tr>
<th>Group</th>
<th>Firstborn</th>
<th>Middleborn</th>
<th>Lastborns</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Death Education</td>
<td>2</td>
<td>15</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>II Introductory Psychology</td>
<td>12</td>
<td>39</td>
<td>27</td>
<td>78</td>
</tr>
</tbody>
</table>
### Table 2

Means and Standard Deviations for the Three Birth Order Groups on The Threat Index and Death Concern Scale (N = 118)

<table>
<thead>
<tr>
<th>Birth Order Group</th>
<th>n</th>
<th>Threat Index Mean</th>
<th>Threat Index SD</th>
<th>Death Concern Scale Mean</th>
<th>Death Concern Scale SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firstborn</td>
<td>15</td>
<td>17.9</td>
<td>9.5</td>
<td>65.8</td>
<td>12.9</td>
</tr>
<tr>
<td>Middle-born</td>
<td>61</td>
<td>13.6</td>
<td>7.7</td>
<td>73.3</td>
<td>12.2</td>
</tr>
<tr>
<td>Last-born</td>
<td>42</td>
<td>18.3</td>
<td>6.6</td>
<td>76.1</td>
<td>11.2</td>
</tr>
</tbody>
</table>
References


Dickstein, L. Death concern: measurement and correlates. Psychological Reports, 1972, 30, 563-571.

Dickstein, L. Self report and fantasy correlates of death concern. Psychological Reports, 37, 1975, 147-158.


