

# Holocaust Rescuer Interviews: Schwartz Values and Triune Ethics Orientations in Semantic Analysis

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## ABSTRACT

Moral exemplars contribute significantly to human morality but are often unavailable for direct study. Computational semantic analysis of exemplar interviews and autobiographical text enhances manual coding for longer texts and comparison across multiple theories. We investigated the underlying prevalence of moral values and ethical orientations within transcribed interviews. Using **latent semantic analysis (LSA)**, we develop probe documents based upon the **Portrait Value Questionnaire (PVQ)**; Schwartz, 2012) and **triune ethics meta-theory (TEM)**; Narvaez, 2008) to analyze transcribed interviews of those who rescued Jewish people and others from the Nazi Holocaust (Monroe, 2014). The resulting analysis measures latent presence of moral values (e.g., security, universalism) and moral orientations (e.g., self-protectionism, communal imagination). Preliminary results demonstrate promise for identifying and relating moral constructs.

## BACKGROUND

Holocaust rescuers are persons from various ethnic backgrounds and geographical locations who rescued Jewish people during the Nazi Holocaust of World War II. These individuals demonstrated exemplary compassion to help Jewish and other peoples facing one of the most prototypically unjust persecutions of the twentieth century while risking death to themselves and their families. **What values and developmental ethical orientations underlie rescuers' exceptional moral action?**

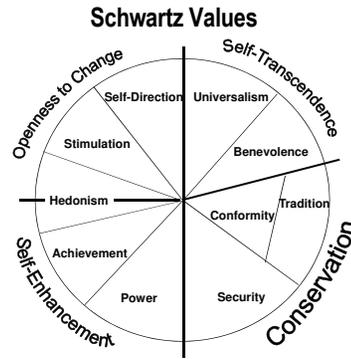
## APPROACH

Although several psychological instruments might help address these questions, Holocaust rescuers are generally no longer available for direct study. Computational techniques developed within artificial intelligence can bridge the gap between instruments designed for direct administration to individuals and rescuer autobiographical narrative text. Semantic analysis can extract semantic representations of well-defined psychological constructs from psychological questionnaires and participant's mental constructs latent within interview responses or other autobiographical text. Comparing semantic representations can help explain the relationship between the theoretical psychological construct and an individual's mental schema.

## METHOD

**Source material.** Several long-form interviews Monroe (2004, 2012) were recorded to examine historical accounts and psychological features of holocaust rescuers. The interview corpus consists of 13 rescuers (eight female), including six published interviews (Monroe 2004, 2012) and seven additional, unpublished interviews obtained from Monroe. Monroe (2012) interviews also include 2 bystanders (one female), and 3 Nazi sympathizers (one female). The complete corpus has approximately 180,000 words.

**Procedure.** Latent semantic analysis (LSA) was used to compare theoretically defined descriptors from Schwartz Portrait Value Questionnaire (PVQ/PVS; Schwartz, 2012) and Triune Ethics Meta-Theory (TEM/TET; Narvaez, 2008, 2014). In three studies, comparisons are made (1) directly between PVS and TET descriptors; (2) between implicit presence of descriptor values and orientations in Rescuer interviews; and (3) between their implicit presence in Rescuers, Bystanders, and Nazi Sympathizers.



## Triune Ethics

- Engagement - Caring, Compassionate, Merciful, Cooperative
- Safety
  - General - Controlled, Tough, Unyielding, Competitive
  - Combative - Combative, Vigilant, Belligerent, Fierce
  - Compliant - Submissive, Yielding, Timid, Unassertive
- Imagination
  - General - Thoughtful, Reflective, Inventive, Reasonable
  - Communal - Humanitarian, Neighborly, Inclusive, Broad-Minded
  - Vicious - Domineering, Aggressive, Zealous, Pushy
  - Detached - Aloof, Apathetic, Withdrawn, Unemotional

## Latent Semantic Analysis (Details)

Latent Semantic Analysis (LSA) (Landauer et al., 2007) computes semantic similarity between texts. Two texts are translated into mathematical representations (bag-of-words vectors) and transformed into vectors in a previously constructed, high-dimension semantic space. The semantic space is constructed so that words close in meaning are mapped to locations near each other. Thus each transformed vector represents the overall meaning of that document, and the closeness (cosine of the angle) between vectors measures semantic similarity between the two texts.

## DISCUSSION

Study 1 found cosine similarities were high within each instrument (PVS max:  $\cos(\text{hedonism, achievement}) = .59$ ; TET max:  $\cos(\text{compliant, vicious}) = .25$ ), but low between instruments (max:  $\cos(\text{pvs.benevolence, tet.detached}) = .15$ ). This suggests the meaning of the descriptors is shared more within PVS and TET (i.e., values and orientations, respectively) and less shared between instruments.

Study 2 found correlations across instruments for Rescuers: between PVS universalism and TET communal imagination ( $r = .85$ ; universalism/nature subitem  $r = .77$ ), PVS tradition and TET communal imagination ( $r = .79$ ), TET vicious imagination and PVS self-direction ( $r = .74$ , all  $p < 0.001$ ). This suggests that values and orientations may inter-relate and that rescuer mental phenomena may be partially characterized by each theory. For example, PVS universalism and tradition are both communal in different ways, and PVS makes distinctions that TET communal imagination may not. Also, PVS self-direction is playful like TET vicious imagination, but focused on self instead of others

Study 3 found clear discrimination between Rescuer, Bystander, and Sympathizer groups, with the first discriminant function (LD1 dimension) separating Rescuer-Sympathizer and the second one (LD2 dimension) separating Bystanders-others, with some variation in Rescuers. These functions loaded on both value and orientation measures.

## CONCLUSION & FUTURE DIRECTIONS

LSA shows promise for identifying moral values and orientations among those unavailable for direct study. It may also prove useful in online discourse and other public spaces.

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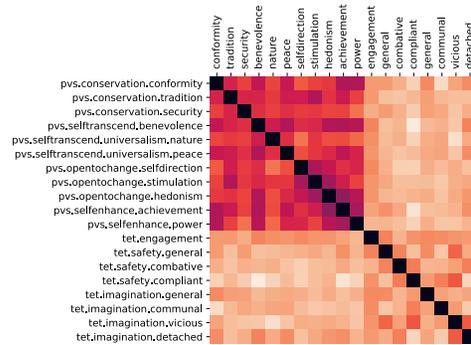
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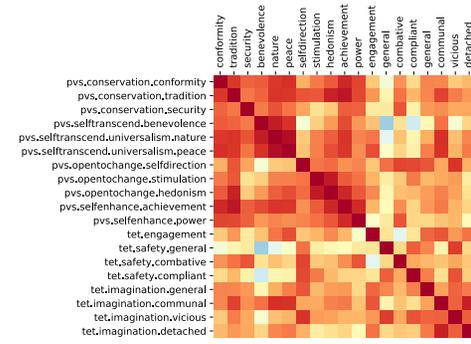
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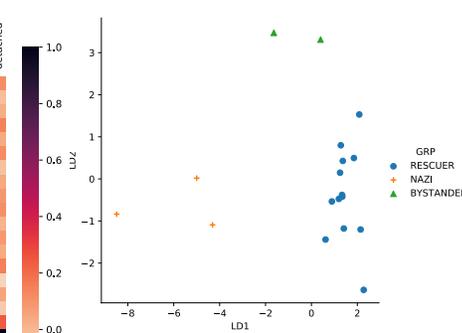
## RESULTS



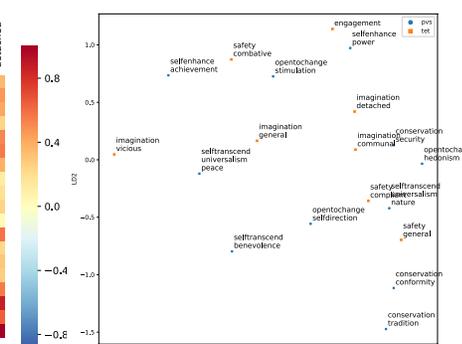
**Study 1 Figure:** Pairwise cosine similarity between descriptors from PVS values and TET orientations. (Higher cosines indicate greater similarity between descriptors.)



**Study 2 Figure:** Pairwise correlations between Rescuer's implicit presence of PVS and TET descriptors.



**Study 3 Figure A:** Linear Discriminant Function Analysis of Rescuer, Bystander & Nazi Sympathizer implicit presence of PVS and TET descriptors.



**Study 3 Figure B:** Factor loadings from Linear Discriminant Function Analysis of implicit presence of PVS and TET descriptors among Rescuers, Bystanders, and Nazi Sympathizers.