**Dissatisfaction With the Status Quo**

Underdetermination: Theory and evidence are mediated by background assumptions; values guide choice of these assumptions

* **Dissatisfaction #1**: Do values have free reign over choice of assumptions? Are there illegitimate ways for values to influence inquiry?
* **Dissatisfaction #2 (Anderson’s Twist)**: Underdetermination shows that values can influence choice of theory; but can theory influence choice of values?

**Two Senses of Value-Free Science**

* *Neutrality*: Theory does not presuppose/support any value
  + *Presupposition neutrality*: Theory should not presuppose any value
  + *Implication neutrality*: Theory does not support any value
* *Impartiality*: Theory choice is influenced only by cognitive values; non-cognitive values should not influence choice of theories[[1]](#footnote-1) [[2]](#footnote-2)

**Psychological Argument for Presupposition Neutrality (PA)**

* Presupposing values lead to wishful thinking and close-mindedness
* The worry is that presupposing values *can* lead to denial of facts (dogmatism)
* Implies that facts do stand in evidential relations with values

**“Logical” Argument for Implication Neutrality (LA)**

* Factual evidence state what *is* the case, while values state what *ought* to be the case. Since *is* does not imply *ought*, evidence does not entail choice of values.
* But evidence does not entail choice of theory either (underdetermination)
* What matters is not logical entailment, but evidential relations
* Real claim is that facts do not stand in evidential relations with values

**Emotional Experiences as Evidence for Values**

EXAMPLE:

* Emotional Experience: Jane feels distressed by Tom’s harassment

Is evidence for

* Value Judgement: Harassment is bad

Conclusion: Facts do stand in evidential relations with values.

**Case Study: Divorce**

|  |  |
| --- | --- |
| **Stage of Research** | **Bidirectional Influence of Facts and Values** |
| 1) Orientation to background interests | **Traditional family values**   * Men and women have husband and wife roles in marriage * Divorce destroys these roles, thereby harming children and couples   **Feminist values**   * Effect on well-being is less certain * Divorce could harm women by enabling men to abandon their wives; but it could also liberate women from oppressive husbands |
| 2) Framing research question | **Traditional family values**   * What negative outcomes does divorce cause? Higher poverty? Worse health? Lower academic achievements?   **Feminist values**   * Methodological objection: negative outcomes might not be caused by divorce, but third factors that cause divorce *and* negative outcomes * Normative objection: focus on negative outcome neglects positive outcomes |
| 3) Conception of the object of inquiry | **Clinical conception of divorce**   * Divorce is conceived in terms of “trauma” and “loss”   **Feminist conception of divorce**   * Divorce is conceived in terms of “chronic” and “opportunity” |
| 4) Choosing data to collect | **Objective data**   * Financial security, behavioral changes, health changes   **Subjective data**   * Self-reports of well-being |
| 5) Data sampling | “Causal inquiries should not select cases on the dependent variable” (p.16)  Problem of biased sampling: data sampled from clinical population may overrepresent divorce-as-loss and underrepresent divorce-as-growth |
| 6) Data analysis | **Main effect:** correlation between IV and DV for the entire sample  **Interaction effect:** correlation between IV and DV for subsamples  Values influence whether focus is on main effect or interaction effect.  [Recall Longino’s (1996) argument that simplicity is truth-guiding only if the world is simple; if world is complex, then heterogeneity is better guide to truth.] |
| 7) Deciding when to end analysis | One can always “dig deeper” and look for interaction effects.  This applies both to effects “unwelcome” to one’s theory, and those “congenial” to one’s theory. |
| 8) Drawing conclusions | Point of divorce research is to answer normative questions based on factual evidence.  Such research would be useless if facts do not stand in evidential relations with values.  Thus, facts *do* stand in evidential relations with values. |

**1) Values influence background assumptions**

**2) Values influence questions asked**

**3) Values influence conceptions**

**4) Values influence data collection**

5) Strategy to avoid bias due to values

**6) Values influence analysis**

7) Strategy to avoid bias due to values

8) Facts influence choice of values

**Is divorce research useless if facts do not stand in evidential relations with values?**

a) Does divorce increase/decrease well-being?

b) Is divorce good/bad?

Even if facts have no evidential relation with b), divorce research can still inform us about a).

**Anderson’s Main Conclusions**

* Values are illegitimately influence inquiry if they are held dogmatically.
* Value-laden research is *not necessarily* dogmatic.
* Facts dostand in evidential relations with values.

**Gems and Coals**

Anderson’s Twist is a simple yet novel idea.

page1image955706976 Anderson’s case study of divorce is supposed to illustrate bidirectional influence between facts and values. Most stages of research show values influencing facts; only 8) shows facts influencing values. I am also skeptical about 8).

page1image955706976 Anderson’s paper is quite ambitious in that it argues for quite a few claims that are interweaved through the paper. I was occasionally unsure which claim is being argued in a given paragraph. I was also overwhelmed by the many distinctions, not all of which seem very important.

**References**

Anderson, E. (2004). Uses of Value Judgments in Science: A General Argument, with Lessons from a Case Study of Feminist Research on Divorce. *Hypatia*, *19*(1), 1–24. http://www.jstor.org/stable/3810929

Kuhn, T.S. (1977) Objectivity, Value Judgment, and Theory Choice. In: Kuhn, T.S., Ed., *The Essential Tension—Selected Studies in Scientific Tradition and Change*, The University of Chicago Press, Chicago, 320-339.

Longino, H.E. (1996). Cognitive and Non-Cognitive Values in Science: Rethinking the Dichotomy. In: Nelson, L.H., Nelson, J. (eds) Feminism, Science, and the Philosophy of Science. *Synthese* Library, vol 256. Springer, Dordrecht. https://doi.org/10.1007/978-94-009-1742-2\_3

1. Kuhn (1977) and Longino (1996) argue against impartiality. [↑](#footnote-ref-1)
2. Hereafter, “values” = “non-cognitive values”. [↑](#footnote-ref-2)