

# Um Leben und Tod

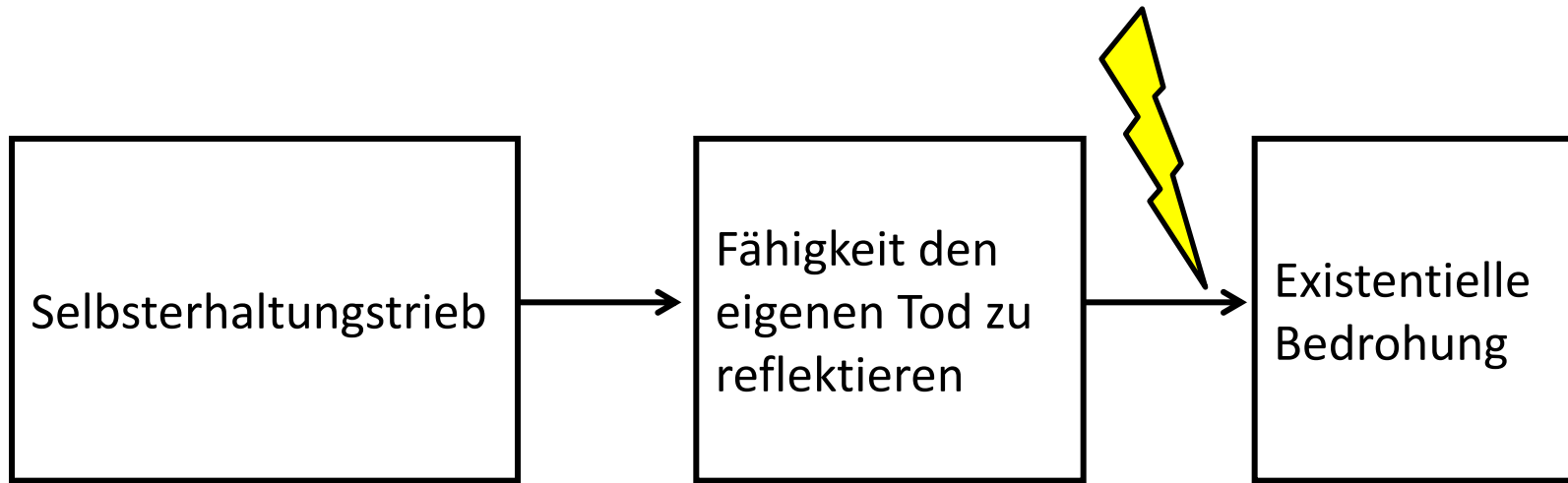
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## Die Mortalitätssalienz-Hypothese auf dem Prüfstand



# The Human Animal

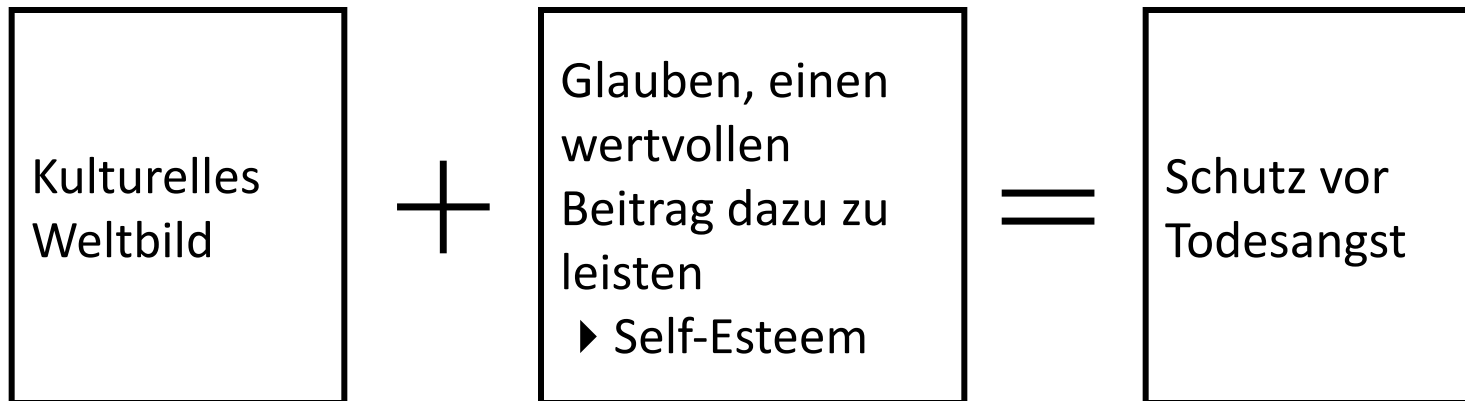
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# Terror Management Theory

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Kultur als „Anxiety-Buffer“



(e.g., Pyszczynski et al., 2015)

# Terror Management Theory

## Mortalitätssalienz (MS) - Hypothese



Konfrontation mit der  
eigenen Sterblichkeit



### Worldview Defense

> „Gleichgesinnte finde ich super!“



> „Anders-Denkende finde ich doof!“



(e.g., Pyszczynski et al., 2015)

# Meta-Analyse zu MS & Norm-Salienz

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**Do Salient Social Norms Moderate Mortality Salience Effects?**

**A (challenging) Meta-Analysis of Terror Management Studies**

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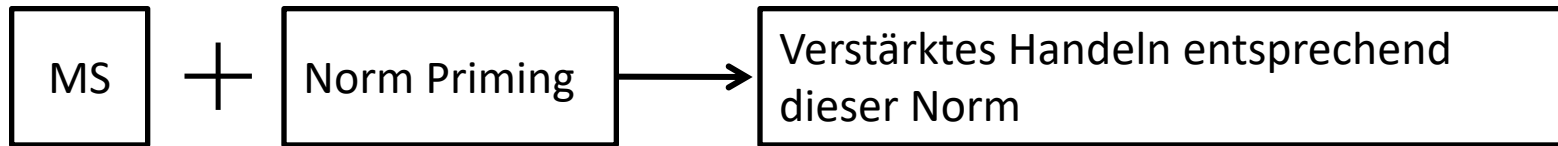
<sup>4</sup>Fort Lewis College

# Meta-Analyse zu MS & Norm-Salienz

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> Mehr als 10 Jahre Forschung zeigen:

**Reaktion auf MS hängt von der Salienz sozialer Normen ab**



**Vorhersagen:**

1. Sign. positiver Effekt von MS auf Verteidigung der salienten Norm

> MS Effekt bei Norm-Salienz ( $k = 39$ ;  $N = 1910$ ):  $g = 0.50 [0.36, 0.65]$ ,  $p < .001$

> MS Effekt wenn keine Norm salient ( $k = 18$ ;  $N = 914$ ):  $g = -0.15 [-0.33, 0.03]$ ,  $p = .089$

2. Sign. Interaktionseffekt ( $k = 32$ ;  $N = 3409$ )

> Interaktionseffekt:  $g = 0.34 [0.24, 0.45]$ ,  $p < .001$

# Meta-Analyse zu MS & Norm-Salienz

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## ABER: Starke Anzeichen für Publication Bias

> Effekt von MS bei Norm Salienc:

-Egger's test ist sign. > small-study effect

-SPET/SPEESE Korrektur führt zu einem n.s. MS Effekt

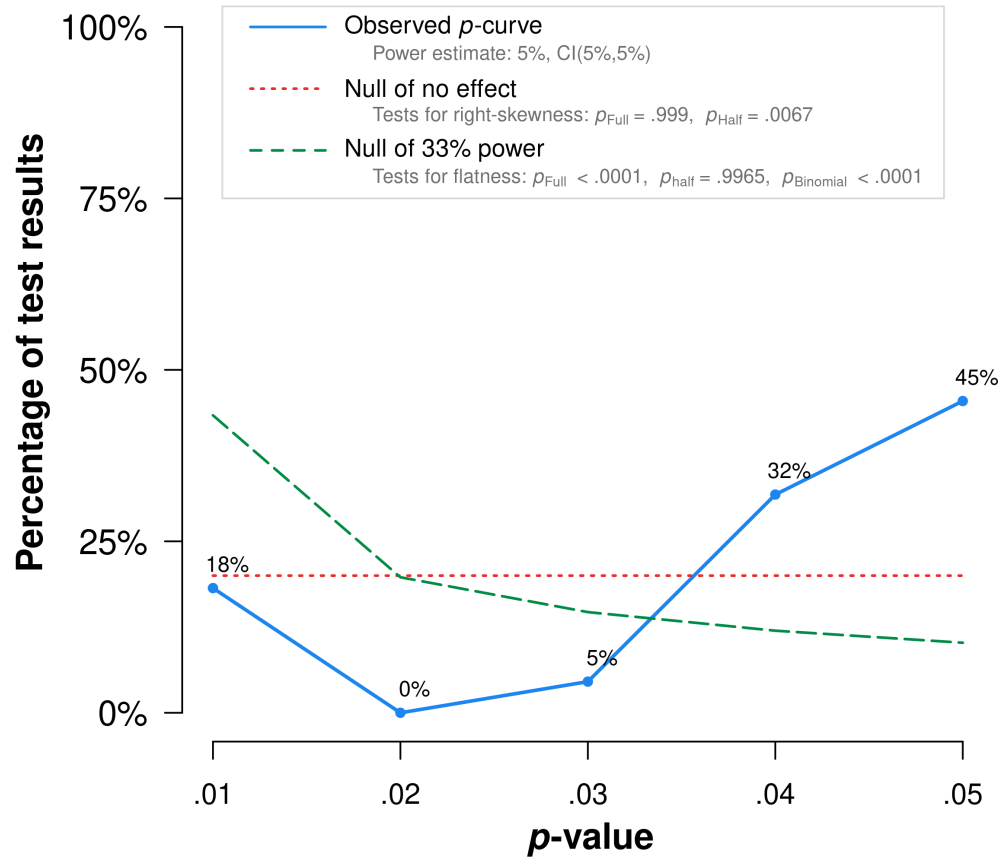
> Interaktionseffekt:

-Egger's test ist sign. > small-study effect

-Alle Korrekturen (incl.  $p$ -uniform, 3PSM) führen zu einem n.s. Interaktionseffekt

(Schindler et al., 2020)

# Meta-Analyse zu MS & Norm-Salienz



Note: The observed  $p$ -curve includes 22 statistically significant ( $p < .05$ ) results, of which 4 are  $p < .025$ . There were 7 additional results entered but excluded from  $p$ -curve because they were  $p > .05$ .

(Schindler et al., 2020)



# Meta-Analyse zu MS & Norm-Salienz

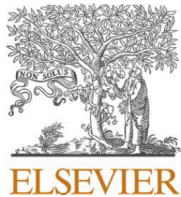
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studies that manipulated MS and social norm salience. Including 39 effect sizes ( $N = 1910$ ), the contrast between MS and the mortality-not-salient condition yielded a significant moderate effect when a norm was salient ( $g = 0.50$ ). Meta-analysis of the MS  $\times$  Norm salience interaction effects across studies ( $k = 32$ ,  $N = 3409$ ) revealed a moderate effect ( $g = 0.34$ ). The gathered literature, however, appeared to be affected by publication bias and the exploitation of researcher degrees of freedom, after adjustment for which there was little evidence for the hypothesized interaction. To determine whether MS and norm salience truly interact to influence behavior, preregistered, well-powered experiments using validated norm salience manipulations will be necessary.

# Publizierte MS Studien nach Open Science Prinzipien

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- Ein paar Arbeiten mit präregistrierten Studien (e.g., Schindler et al., 2019; Vail et al., 2019)
- Eine publizierte Replikation: Rodriguez-Ferreiro et al. (2019)
  - Direkte Replikation von Goldenberg et al., (2001, Study 2)
  - **Kein MS Effekt,  $p = .610$**
- Keine Registered Reports



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## Journal of Experimental Social Psychology

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Registered Report Stage 2: Full Article

# Defending one's worldview under mortality salience: Testing the validity of an established idea<sup>☆</sup>



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### ARTICLE INFO

**Keywords:**

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### ABSTRACT

Terror management theory (TMT) posits that mortality salience (MS) leads to more negative perceptions of persons who oppose one's worldview and to more positive perceptions of persons who confirm one's worldview. Recent failed replications of classic findings have thrown into question empirical validity for this established idea. We believe, that there are crucial methodological and theoretical aspects that have been neglected in these studies which limit their explanatory power; thus, the studies of this registered report aimed to address these issues and to directly test the worldview defense hypothesis. First, we conducted two preregistered lab studies applying the classic worldview defense paradigm. The stimulus material (worldview-confirming and -opposing essays) was previously validated for students at a German university. In both studies, the MS manipulation (between-subjects) was followed by a distraction phase. Then, in Study 1 ( $N = 131$ ), each participant read both

# Study 3

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## Online (Respondi), N = 1356

Power-Analyse:  $d = .20$ , power = .96 -> 1302 VPn

Erhebung 10. bis 16 Oktober 2020: 1908 Vpn (in D geboren)

> Ausschluss von **552 VPn** entsprechend Präregistrierung, z.B.

- merkwürdige Antworten in der MS/DP Bedingung
- TMT ist bekannt
- Eingeständenes Random Responding
- an Corona gedacht

# Study 3

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**UV:** MS vs. Dental Pain (between)

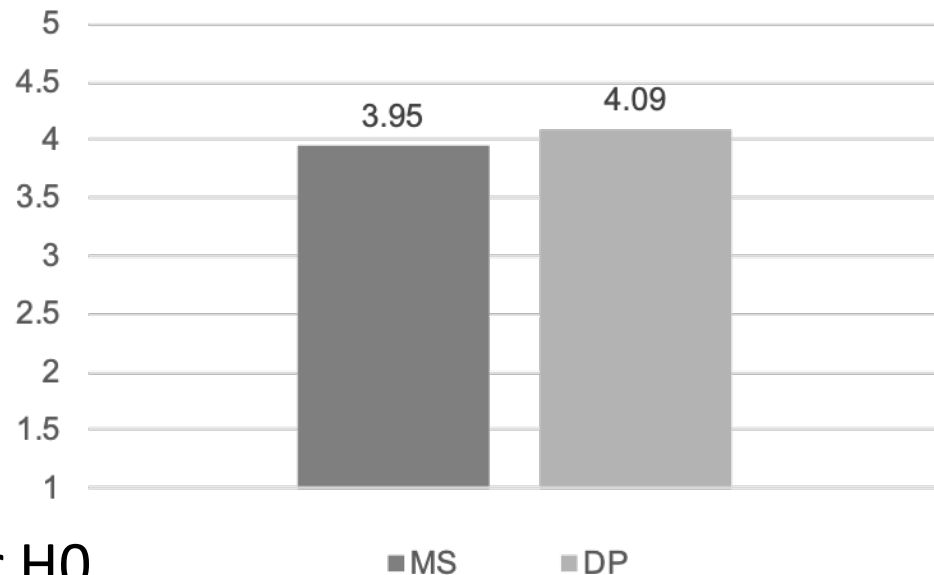
Weltbild widersprechender (machiavellistischer) Essay -> Validation Study

**AV:** original WD Items (5)

**Ergebnis:**

$p = .101$

Bayesian Analysis:  
Die Daten sind 4.3 x  
wahrscheinlicher unter der H0



# Internal Meta-Analysis

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MS vs. CG in the worldview-opposing condition

$N = 1625$

Result:

**Hedges'  $g = 0.10 [-0.00, 0.19], p = .058$**

# Zusammengefasst...

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Meta-Analysen zu MS Effekten zeigen Hinweise für QRPs

- (z.T. starker) Publication Bias
- $p$ -hacking (zumindest bei Forschung zu MS x Normen)

Erste Replikationsversuche sprechen - wenn überhaupt (!) - für einen kleinen Effekt

> Kleiner Effekt: meisten Studien zu MS sind klar underpowered (average  $N = 88$ ; Burke et al. 2010)

# Fragen...

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- > Welche Relevanz hat die Effektgröße für die Stärke des empirischen Arguments für eine (theoretische) Hypothese?
- > Wie stark kann ein empirisches Argument sein, wenn es auf einem Effekt beruht, der nur unter ganz bestimmten Bedingungen experimentell zu zeigen ist?
- > Wann ist eine Hypothese widerlegt?

