Jamie, Ian & Sean - AMP is not implicit - Liplab presentation 16/5/19

Theoretical background

- Affect Misatribution Task's (AMP) is used in research on the basis that it is an implicit measure.
- Effect assumed to be mediated by misattribution and emitted under the operating conditions of unawareness and/or unintentionality (Payne & Lundberg, 2014).
- We reexamine if AMP effects are in fact 'implicit' in the sense of operating without a person's intention or awareness.
- If not, then:
 - Not mediated by misattribution
 - Not an implicit measure
 - Not that attractive to use in future research

Empirical Background

- Payne et al. (2013, Experiment 3): Traditional AMP vs. Skip AMP.
 - Three response options: evaluate as positive, negative, or skip on the basis that I was influenced by the prime.
 - No differences observed between Traditional AMP and Skip AMP.
 - Concluded that Traditional AMP effect is therefore driven by unaware & unintentional responding.

- Problems:

- o Compound response conflates evaluates evaluation & influence
- Study was underpowered, used non-significant differenes as evidence for equivalence. -> biased towards supporting the hypothesis

- Useful:

- o Established that Payne considers unaware and unintentional to be equivalent
- Established an evidence bar: Skip AMP defined as acceptiable source of supporting evidence for the misattribution account, so results from other highly similar tasks must also be accepted.

Experiments



Experiment	Task 1	Task 2	Sample
1	-	Positive-Negative IA-AMP	
2	Positive-Negative AMP	Positive-Negative IA-AMP	
3	Politics AMP	Positive-Negative IA-AMP	US Democrats only
4	Politics IA-AMP	Positive-Negative IA-AMP	US Democrats and Republicans
5	Positive-Negative AMP with Mann et al modifications	Positive-Negative IA-AMP with Mann et al modifications	

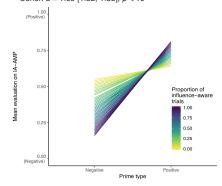
- Mann et al's (2019) recent modifications to the AMP, which attempt to reduce bimodality of the AMP effect between participants, were shown to not to reduce the impact of influence-awaress on the AMP effect.

Jamie, Ian & Sean - AMP is not implicit - Liplab presentation 16/5/19

Meta analyses

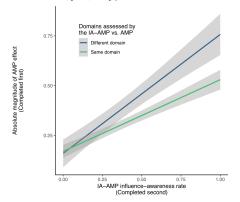
IA-AMP effects strongly correlated with influence awareness rate (within the same task)

- Cohen d = 1.69 [1.52, 1.85], $p < 10^{-89}$



Traditional AMP effects strongly correlated with influence-awareness rate on the IA-AMP, even though

- 1. Even though the AMP was completed prior to the IA-AMP, cannot be influenced by it.
- 2. Even when the AMP and IA-AMP are in completely different attitude domains!
- Beta = 0.43, [0.29, 0.58], $p < 10^{-8}$

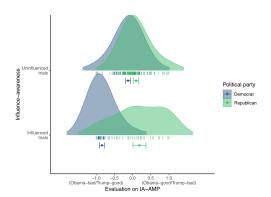


Jamie, Ian & Sean - AMP is not implicit - Liplab presentation 16/5/19

Experiment 4 - predictive valdiity

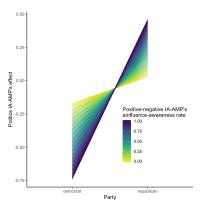
Politics IA-AMP influence-awareness drives its ability to detect known groups differences

- Influence-aware trials: Cohen's d = 2.08 [1.62, 2.55]
- Influence-unaware trials: Cohen's d = 0.62 [0.33, 0.91]
- Difference: p = .0000002



Positive-Negative IA-AMP's influence-awareness rate predicts difference between known groups on the Politics IA-AMP effect

- Even though the Politics AMP was completed prior.
- Even though the IA-AMPs are in completely different attitude domains!
- Beta = 1.01 [0.75, 1.27], p = .0000000000001



Jamie, Ian & Sean - AMP is not implicit - Liplab presentation 16/5/19

Implications

AMP is not an implicit measure

- task much less appealing to use

Not mediated by a misattribution process

- Several theories built on AMP effects are undermined:
 - o Process model of misattribution (Payne, Hall, Cameron, & Bishara's, 2010)
 - Claims that evaluative conditioning is based on a misattribution process (Jones et al., 2009)
 - Claimslipl that psychological properties beyond evaluations can also be misattributed (Blaison, Imhoff, Hühnel, Hess, & Banse, 2012).

AMP-derivative tasks undermined

- Semantic Misattribution Procedure (Sava et al., 2012)
- Truth Misattribution Procedure (Cummins & De Houwer, 2019)

Can we continue to use the AMP agnostic to its implicitness?

- Unlikely, as it only captures behaviour in a subset of the population.
- Influence awareness rates correlate highly between two IA-AMPs that assess completely different
 attitude domains, r = 0.82, [0.77, 0.86]. This is higher than then within domain test-retest reliability
 of many measures!
- The AMP doesn't measure evaluations (whether or implicit) in participants, only in a consistent subset of participants who are highly influence aware.
- These are a minority of the populartion (e.g., 8% > 90% aware).
- AMP is not an (explicit or implicit) measure of anything in most participants.

Reevaluation of previously published results needed

- Someone should do a systematic review (but probably not us?)
- Possibly replication of key effects (but probably not us?)

IA-AMP as an alternative task for the future?

- Only if you can stomach (a) the loss of power/predictive utility and (b) only studying a specific subset of the population.
 - N = 16 needed using influence-aware trials
 - N = 138 needed using influence-unaware trials

What defines highly AMP influence-aware individuals? Is it a state or trait characteristic?

Currently unclear.