International Journal of Psychology

International Journal of Psychology, 2015
Vol. 50, No. 4, 308–311, DOI: 10.1002/ijop.12153

On the universality of the attribution-affect model of helping

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Although Pilati et al.'s (2014) findings question the strong quantitative universality of the attribution-affect model of helping, they are consistent with a weak form of quantitative universality, as well as with the qualitative universality of the theory. However, universality is put into question by previous studies revealing significant and sizeable between-study differences in the strength of the causal paths postulated by the theory. These differences may in part reflect differences in the type of helping situations studied.

Keywords: Attribution-affect model of helping; Cross-cultural research; Qualitative and quantitative universality; Helping; Anger; Sympathy; Responsibility.

The attribution-affect model of helping (AAHM; Weiner, 1980, 2006, 2015) postulates that beliefs about a needy other's controllability of / responsibility for his or her state of need are an important determinant of helping, and that this link between attribution and action is mediated by the emotions of sympathy and anger. Weiner (2006, 2015) suggests that the assumptions of the AAHM are universally true. However, Pilati et al. (2014) report data that, they believe, indicate that the causal links postulated by the AAHM are at least in part culture-specific, and hence not universal.

WHAT DOES THE UNIVERSALITY CLAIM MEAN?

Exactly what is meant by "the AAHM" in the universality claim, and are there any restrictions on the subjects for which the theory is meant to hold true? With respect to the first question, it is helpful to distinguish between core and peripheral, as well as between qualitative and quantitative assumptions of the AAHM.

The core assumptions of the AAHM concern the causal links between beliefs about controllability/responsibility, sympathy, anger and the tendencies to help versus to withhold help. It is these assumptions on which Weiner (2015) and Pilati et al. (2014) focus. However, there is also an extended version of the AAHM that completes the core model on the input and output side by adding two more assumptions: (a) the perception of another person in a negative state or in need of aid instigates, at least typically, attributional processes resulting in judgements of responsibility (or lack of responsibility); (b) the dominant resultant action tendency (to help vs. to not help) is typically executed, that is, it causes the corresponding action, or at least the attempt to perform that action. Although Weiner (2006, 2015) claims universality only for the core AAHM, at least implicitly, he and other AAHM researchers also seem to assume the universal truth of the extended version of the theory. Nevertheless, because the AAHM does not assume that attributions are made in *every* helping situation, it is always reasonable, when confronted with potentially disconfirming data (e.g. Pilati et al., 2014), to ask whether the investigated helping situation (including its mode of presentation, i.e. hypothetical vs. real) was suited to instigate attributional processes (Weiner, 2015).

As regards the qualitative–quantitative distinction: Qualitatively, universality of the core AAHM means that the postulated causal relations between the theory's variables, including the direction of these influences, are universal. That is, in all (eligible, see the next section) people, a perceived lack of responsibility elicits sympathy, perceived responsibility causes anger, sympathy evokes an impulse to help, anger an impulse to withhold help; and these motivational tendencies combine with possible additional action tendencies extrinsic to the AAHM into a final tendency to help versus to not help. These qualitative assumptions constitute the *minimal content* of the universality claim for the AAHM,

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because they seem to define the identity of the theory. Note that, although typically formulated deterministically (e.g. Weiner, 2006, 2015), as done here, these qualitative assumptions are in fact meant to hold true only in the typical case, because both the emotions and the resultant action tendency are acknowledged to be influenced by additional variables not explicitly considered in the theory (e.g. Weiner, 2006).

The quantitative version of the AAHM refines the qualitative assumptions by taking into account that the variables of the theory come in degrees rather than being all or none. It is now assumed: (a) the higher the perceived responsibility of the person in need, the more anger and the less sympathy are experienced; (b) the higher the intensities of these emotions, the stronger are the tendencies to help versus to withhold help that they cause; and (c) these two conflictive action impulses are additively combined (together with yet other, relevant motivational forces extrinsic to the theory) into a final, resultant action tendency to help versus to withhold help. The simplest quantification of the monotone functions in a–c is to specify them as linear. Doing so leads fairly naturally to a quantitative version of the AAHM as a system of linear structural equations (including error terms) that can be fitted to data using path analysis or structural equation modelling (e.g. Bollen, 1989; see Reisenzein, 1986; Rudolph, Roesch, Greitemeyer, & Weiner, 2004).

In the quantitative version of the AAHM, the above-described qualitative universality claims translate into the assumptions that the path coefficients for responsibility-anger and sympathy-helping are universally positive, and those for responsibility-sympathy and anger-helping are universally negative. In addition, however, the *strength* of the causal relations now becomes an issue. The formulation "A typically causes B" (e.g. "perceived responsibility typically causes anger") suggests to me that the (standardised) path between A and B should be, on average, of at least medium size, and this suggestion has found empirical support (see Rudolph et al., 2004; Model 2). However, this specification still allows for interindividual and cultural variations in the path strengths, leading to three successively weaker (or more flexible) versions of the quantitative universality claim: (Q1) The path coefficients are the same in all (otherwise eligible) persons, up to measurement error. (Q2) For each path in the AAHM, the path coefficients of different individuals vary (e.g. normally) around a mean value. (Q3) The path coefficients vary interindividually around cultural mean values, which in turn vary around a common mean. Note that all three versions of the quantitative universality claim must also fulfil the qualitative constraints of the theory: Corresponding path coefficients in all individuals and cultures must have the same sign, and be at least of medium size. Q1 could be motivated by the assumption that the AAHM mechanism has been entirely crafted by evolution. However, even then, Q2 is more plausible, because variation around a standard is ubiquitous in biological systems (see Reisenzein, 2000, for parallel considerations in the case of the surprise mechanism). Hence, the choice is realistically only between Q2 and Q3. Q3 is more plausible than Q2 if one assumes that the kind and direction of the causal links described by the AAHM were established in evolution, but their strength can still be influenced by learning; that is, learning can strengthen or weaken the evolutionary presets. Q3 (as well as Q2) constitute refinements of the original universality claim (Q1) that distinguish between universal and non-universal components of the mental mechanisms described by the AAHM.

Taken together, these considerations suggest two conclusions: First, to be realistic, quantitative universality claims concerning the AAHM need to allow for some degree of interindividual variation in the parameters of the linear functions, and hence the quantitative laws, of the theory. Second, it is possible to formulate a version of the quantitative universality claim for the AAHM (Q3) that actually *predicts* systematic cultural differences of a quantitative kind rather than being put into question by them. Furthermore, none of the three universality claims seems to be compatible with a radical social-constructivist view, according to which the AAHM mechanism is in its entirety acquired through social learning. Such a view would presumably predict that the causal links between the variables of the AAHM can differ qualitatively (i.e. in terms of direction and even causal order) in sufficiently different people or cultures.

To whom does the AAHM apply?

What are the subjects to which the AAHM is meant to apply? At least at second thought, "all humans" is clearly too general. In fact, neither the AAHM nor any other psychological theory has ever been seriously meant to hold true for all humans, but at best for all *normally functioning* humans, and frequently only for all normally functioning *adults*. Given the vagueness of the term "normally functioning," this means that all universality claims are vague to the same degree. However, at least in the present case, the meaning of "normally functioning" can be made somewhat more precise by demanding that eligible people, apart from being awake, not under the influence of drugs etc., must be able *in principle* to engage in the processes postulated by the AAHM. For this reason, for example, sociopaths incapable of experiencing pity, children not yet capable of judging control and responsibility and brain-damaged people no longer able to do so (Camille et al., 2004) do not belong to the theory's intended domain of application. Weiner (2015) also mentions "saints who help everyone" and "hardened drug dealers who will not help anyone" as cases one might want to exclude from the domain of application of the

AAHM. But here one must be careful. Although it is true that, due to the lack of variability in their reactions, these people are not suited for estimating the parameters of the quantitative AAHM model, they can still confirm or disconfirm the theory. Specifically, if, as Weiner (2015) suggests, saints help and hardened drug dealers do not help regardless of attribution, they disconfirm the AAHM. However, it is also possible that these people always or never help because their attributional processes always take the same particular course. For example, the saints consider everybody in need as a victim of circumstances, therefore always feel pity, and hence always help. In this case, Weiner's saints and drug dealers would confirm the theory. Finally, if the saints and drug dealers never attribute control and responsibility, the core AAHM is untestable for them, whereas the extended version of the theory is refuted.

PILATI ET AL. (2014) RECONSIDERED

Cross-cultural comparisons are particularly interesting tests of the universality of a psychological theory because they promise to provide, simultaneously, information about the importance of "nature" versus "nurture," evolution versus learning (specifically learning via cultural transmission; Mchitarjan & Reisenzein, 2013) in the construction of the mental mechanism described by the theory. In Pilati et al.'s (2014) study of Brazilian subcultures, a simplified version of the AAHM was tested, in which sympathy and anger were combined into a single variable termed "compassionate emotion." The paths between the resulting variables responsibility, affect and helping were estimated using path analysis in five different regions of Brazil. A close examination of the results (Tables 3 and 4 in Pilati et al., 2014; see also, Weiner, 2015) reveals that the *qualitative* universality claim was actually supported: the direction of the causal paths was in line with the AAHM in all five regions of Brazil. However, the *quantitative* universality claim found only partial support. The authors tested a version of this claim that assumes identical causal paths in all subcultures (i.e. Q1 or Q2). Contradicting this assumption, the responsibility-affect path was markedly weaker in the South (−.043) and Southeast (−.123) than in the remaining regions of Brazil (where it ranged from −.231 to −.245); in the South, it was in fact not significantly different from zero (Table 3) and significantly weaker than in the Midwest and North (Table 4). In addition, the responsibility-affect path had in all regions at most half the size found in previous studies of the class-notes scenario.

As detailed by Weiner (2015), Pilati et al.'s (2014) study differed in several respects from previous studies using the class-notes scenario (e.g. Reisenzein, 1986; Weiner, 1980; see Rudolph et al., 2004). Although these between-study differences cannot alone explain the obtained differences between the Brazilian subgroups, they could have increased the error variance relative to the previous studies. This would have lead to a decrease in the size of the paths (Weiner, 2015) and thus could explain, at least in part, the difference in path strength compared to the previous studies. More importantly, one or more of these between-study differences could have interacted with Brazilian subculture to produce the regional moderation effect found by Pilati et al. (2014). Alternatively, the differences between Brazilian subgroups could have reflected measurement inequivalence, rather than a true difference in the structural coefficients (measurement equivalence was not formally tested by Pilati et al.). The validity of these hypotheses can ultimately only be decided by conducting a replication study in which the complete AAHM is compared in at least two critical regions (e.g. the South and North) of Brazil using, ideally, multiple measures for each variable, several different helping scenarios, different sequences of questions (see Weiner, 2015), and a direct measure of *simpatía* (Triandis, Marin, Lisansky, & Betancourt, 1984).

Let us assume, however, that an improved replication study of this kind has been conducted, and that its results confirm the regional moderation effect obtained by Pilati et al. (2014) plus support its interpretation as a cultural effect. In this case, the stricter versions of the quantitative universality claim for the AAHM, that assume identical path coefficients in different cultures (Q1 and Q2), are refuted. However, as long as the path coefficients are in the predicted direction and at least of medium size (after measurement error is controlled), the finding of a cultural moderation effect would still be compatible with the weaker universality claim Q3, that allows for systematic cultural differences in the size of the structural coefficients.

IS THE AAHM UNIVERSALLY TRUE?

Quite independent of the Pilati et al. (2014) study, there are both empirical and theoretical reasons to doubt the universality of the AAHM (at least quantitative universality). The empirical reasons are provided by the meta-analysis of 39 studies of the AAHM by Rudolph et al. (2004). These authors found a statistically significant and sizeable between-study variation in the path coefficients for every single AAHM path, suggesting that important moderators do exist. The path coefficients of the individual studies are not reported but can be estimated from the correlations, which were as follows (Rudolph et al., 2004, Table 1): control (responsibility)-sympathy −.15 to −.77, responsibility-anger −.23 to .78, sympathy-helping .25 to .75 and anger-helping .01 to .71.

These between-study differences are undoubtedly due to several causes, including sampling fluctuations,

measurement issues (studies using single-item measures will yield smaller structural coefficients) and possibly cultural differences (Pilati et al., 2014). However, I would like to draw attention to another possible moderator, the *type of helping situation* studied. It is theoretically possible (a) that different helping situations differ on variables not considered in the AAHM that also affect the endogenous variables of the theory (sympathy, anger, help) and (b) that these omitted variables *interact* with the AAHM variables in their effects on the endogenous variables.

That additional causes of the endogenous variables of the AAHM exist has been acknowledged since the beginnings of attributional theorising on help-giving (e.g. Weiner, 1980). Important influences on the *motivation to help*, in addition to the intensity of sympathy and anger, include in particular considerations of cost/benefit and feasibility, as well as the perceived degree of need of the help-seeker (see also, Reisenzein, 1986). *Sympathy for the other* is also influenced, apart from perceived responsibility, by the undesirability (or degree of negativity) of the other's predicament for himself or herself, and its undesirability for oneself (see e.g. Heider, 1958; Ortony, Clore, & Collins, 1988; Reisenzein, 2015). As to *anger*, the deeper reason for feeling angry at a person responsible for his or her state of need is that, by responsibly getting herself into a predicament that requires help from others, this person has violated a norm of proper behaviour: he or she should have done otherwise (Weiner, 2006). This suggests that the importance of the violated norm for the potential help-giver is another determinant of anger.

The important point about these additional causes of sympathy, anger and helping is that they, rather than having simple additive effects, seem to *interact* with the causes specified in the theory in their effects on the dependent variables, at least at the extremes of their range. For example, even if sympathy for the help-seeker is high and anger is low, one may not help, nor even intend to help, if helping is too costly for oneself or if one believes one cannot provide the help needed. Conversely, even if sympathy for the other is low and anger is high, one may help if the need is perceived as serious. Regarding sympathy, even if the help-seeker is viewed as responsible, sympathy can be high if his or her predicament is serious—too serious to be regarded as a "deserved punishment" for breaking a social norm. Conversely, even if the help-seeker is regarded as not responsible, sympathy will be low if one regards his or her predicament as trivial. And if one regards the other's predicament as desirable for oneself, one may even experience Schadenfreude rather than sympathy (Heider, 1958; Ortony et al., 1988).

Because the variables omitted from the AAHM not only reduce the explained variance in sympathy, anger and motivation to help, but can also lead to systematic variations of the path coefficients of the AAHM in different helping situations, I believe that the universality claim for the AAHM is false in a strict sense. Universality may hold, however, for a subset of helping situations in which the omitted variables remain within a range that allows the AAHM variables to have the predicted effects. Universality may also be found for an expanded version of the AAHM in which the omitted variables are included.

Manuscript received January 2015
Revised manuscript accepted January 2015
First published online February 2015

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