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Intellectual Humility

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Intellectual humility (IH) can be defined as an awareness of and appropriate attentiveness to one's personal intellectual limitations. IH is a young concept: the term started being used in the 2010s, followed by exponential growth after multiple conceptualizations and measures were developed simultaneously. Researchers have been interested in the consequences of IH in the areas of human development, education, judgment and decision-making, leadership, intergroup relations, interpersonal interactions, and health behaviors. To date, IH has been linked to a number of benefits in these areas, including superior information processing, possessing more accurate knowledge, and a reduction in cognitive and social biases. Emerging work is examining factors that influence IH, mechanisms for eliciting IH, and interventions for cultivating long-lasting IH.

History

The study of intellectual humility (IH) has roots in the field of philosophy and subsequently became a topic of interest in the field of psychology. In philosophy, IH is often considered an epistemic virtue—a quality that helps people acquire and use knowledge in responsible and reliable ways (e.g., [Baehr, 2011](#)).

Programmatic research into IH began in the 2010s. It remains an active topic of research, with debate over even basic definitions of the term ([Porter et al., 2021](#)). However, a recent review has identified a number of key themes (see [Porter et al., 2022](#)). Waves of research can be observed in the literature, including (1) work on the conceptualization and measurement of IH; (2) research on the correlates and outcomes of IH in various domains such as religion, politics, and leadership; (3) research on the development of IH; and finally, (4) research on the psychological mechanisms and interventions that can promote IH in real-world contexts.

Core concepts

IH as a trait and as a state

As a trait, IH involves people's general proclivity to acknowledge and accept their intellectual limitations. As a state, IH involves people acknowledging and accepting their intellectual limitations in particular situations. Similar to personality traits, IH as a trait can be understood as a density distribution of IH states. In interpersonal contexts, people demonstrate considerable within-person variability in state IH, and this variability can be greater than the variability in mean levels between people ([Zachry et al., 2018](#)). This finding highlights the importance of attending to the situations that promote or hinder IH for people during their daily life experiences.

Measurement of IH

Along with a range of conceptualizations of IH, over a dozen measures of IH have been developed. Although methods have been developed for human ([Grossmann et al., 2010](#)) and machine ([Abedin et al., 2023](#)) coding and informant reports of IH ([McElroy et al., 2014](#)), self-report measures are by far the most

commonly employed (e.g., [Haggard et al., 2018](#); [Krumrei-Mancuso et al., 2016](#); [Leary et al., 2017](#)). Some of these tap self- and other-focused content as well as internal and expressed features ([Porter et al., 2021](#)). Measures range in their levels of construct fidelity and applied utility. In addition, recent work has called into question what exactly is being assessed by self-report measures of IH ([Costello et al., 2023](#)). Therefore, it is useful for those studying IH to clearly report what they assessed and to report on individual subscales if multiple dimensions were measured.

The cognitive associations of IH

A growing body of research suggests IH is associated with information processing and the acquisition of knowledge. For example, individuals higher in IH are more attuned to the strength of persuasive arguments ([Leary et al., 2017](#)) and possess more general knowledge ([Krumrei-Mancuso et al., 2019](#)). IH correlates with various characteristics of careful thinkers, including the tendency to enjoy and engage in effortful cognitive activities and the tendency to engage in reflective thinking, intellectual engagement, and curiosity (e.g., [Krumrei-Mancuso et al., 2019](#)). These findings have real-world applications. IH has been linked to a reduction in cognitive biases, including outgroup prejudice ([Colombo et al., 2021](#); [Van Tongeren et al., 2016](#)), political myside bias ([Bowes et al., 2021](#)), and ideological polarization ([Bowes et al., 2020](#); [Krumrei-Mancuso & Newman, 2020](#)). Further, IH is associated with a lower acceptance of fake news, medical misinformation, and unsupported conspiracy theories (e.g., [Koetke et al., 2022](#)).

Cultivating IH

A growing body of literature suggests people's IH can be increased. One approach for cultivating IH involves helping people expand their focus beyond themselves. The most support exists for an intervention in which participants journal about a social conflict using third-person pronouns for themselves. This practice creates a self-distanced perspective, resulting in greater IH (e.g., [Grossmann et al., 2021](#)). Emerging work is suggesting that IH might similarly be increased when people shift from a narrow self-focus to a more expansive perspective through the induction of flow states, self-transcendent emotions—such as awe and gratitude—and perceptions of sacredness ([Kim et al., 2023](#); [Krumrei-Mancuso et al., 2023](#)).

Some early attempts to cultivate IH involved making people aware of their intellectual limitations, but these efforts seemed to backfire by making people more defensive. Recent work, however, suggests it might be possible to boost IH by showing people their intellectual mistakes as long as this is paired with an opportunity for people to affirm that it is okay to recognize the inaccuracies in their knowledge ([Koetke et al., 2023](#)). This and other work illustrate the importance of decreasing people's threat assessments about recognizing their intellectual limitations. Similar efforts have been made to bolster psychological safety by having people affirm their values ([Hanel et al., 2023](#)) or acknowledge the social responsiveness of a relationship partner ([Reis et al., 2018](#); [Itzhakov et al., 2024](#)).

Questions, controversies, and new developments

Given the number of independent cohorts that began studying IH around the same time, a key challenge in the scholarship of IH is the range of definitions of IH that developed. Although nearly all definitions focus on the awareness of intellectual fallibility, there is disagreement about what additional features are necessary and sufficient for defining IH. Candidate features include open-mindedness, love of learning, and the ability to not feel threatened by one's intellectual limitations.

A current trend in the literature is to examine interventions and educational programs for promoting IH. Recent randomized controlled trials have indicated small-to-medium increases in IH on the basis of an online educational program targeting skills for engaging across sociopolitical differences, such as active listening and conflict management ([Welker et al., 2023](#)). Replication is needed to speak confidently about methods for increasing IH.

Important research questions that should not be neglected include in what contexts and for whom IH is beneficial. A key question raised by researchers as well as practitioners is whether IH can be recommended for individuals in an inferior power position (e.g., [Whitcomb et al., 2021](#)).

Finally, existing empirical work has examined IH in individuals. Progress needs to be made on the study of IH in groups, cultures, and other collectives ([Dunning, 2023](#); [Grossmann et al., 2020](#); [Krumrei-Mancuso et al., 2024](#)).

Broader connections

Wisdom

A branch of research on IH developed within the scholarship of wisdom [see [Wisdom](#)]. Intellectual humility—defined as the recognition of the limits of one's knowledge—is considered a core facet of wise thinking ([Grossmann, 2017](#)). In this work, intellectual humility is studied as a pragmatic schema that people can use to deal with social conflicts.

Thinking styles and cognitive biases

Although some researchers consider open-mindedness a necessary-but-not-sufficient aspect of IH, philosophers tend to emphasize the distinction between these constructs. This places IH adjacent to open-mindedness and its expressions, including actively open-minded thinking and open-minded cognition. Other thinking styles and cognitive biases that are related but distinct include dogmatism, the earned dogmatism effect, belief superiority, and the illusion of explanatory depth.

Human judgment and decision-making

IH is associated with information processing in that IH is linked to people being better at judging what they do and do not know ([Deffler et al., 2016](#); [Krumrei-Mancuso et al., 2019](#)). IH is associated with more critical thinking, less overestimation of knowledge, and less overclaiming of knowledge ([Bowes et al.,](#)

2024; [Krumrei-Mancuso et al., 2019](#)). IH is associated with relying on data-driven sources ([Ryu et al., 2023](#)) and reduced cognitive biases in decision-making contexts ([Cao & Li, 2023](#)). Finally, IH has been thought of as influencing people's latitude of acceptance within a social judgment framework of attitude change ([Huynh et al., 2024](#)).

Neuroscience

Although neuroscientific work on IH is extremely limited, neurophysiological markers have been used as indicators of IH in the study of children. Specifically, smaller error-related negativity, a neural marker of error correction, has been associated with greater self-ratings of IH ([Danovitch et al., 2019](#)). In the same research, larger error positivity, a neural marker of error detection, was associated with behavioral indicators of IH.

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