Human's "personality glasses" – Why we form impressions of individuals. New insights into a uniquely human ability

The ability to quickly form impressions of other individuals' "personality" seems to be a uniquely human ability. A 3-year cross-species study of 104 crab-eating macaques and 99 human observers of these monkeys further explored this fascinating human ability. The study illuminated the ways in which judgements of individuals are influenced by beliefs about age, status and sex differences that are rooted in our everyday knowledge and that tend to be stereotypical. These intuitive beliefs are like glasses through which we form impressions of the "personality" of individuals. These beliefs even affect how we judge individuals of other species! The study unravels common mistakes that we make when forming impressions of individuals. But despite widespread inaccuracies and mistakes, the ability to quickly form impressions of strangers could have been of enormous importance in human evolution: It enabled our ancestors to trade with unknown individuals of foreign cultures, and it was also an essential prerequisite for the domestication of animals. An exciting study about humans and monkeys from different continents.

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Information about who is doing what with whom plays an essential role in our everyday lives. By communicating such information, we exchange experiences that we have had with particular individuals as well as our ideas and opinions about these individuals. Within our sociocultural communities, we develop shared beliefs and values about individuals and their peculiarities as well as a shared language for communicating this information. Our everyday language therefore contains numerous words that we can use to efficiently and quickly communicate complex information about individuals. We use the small piece of information that somebody is "friendly" to draw conclusions about an individual whom we have not yet met and we align our actions accordingly.

This is possible because our everyday knowledge contains a differentiated system of social categories. This system is partially based on our own experiences, but in particular on our everyday language, i.e., on the experiences and beliefs of previous generations. Therefore, all individuals of our cultural and language community share this knowledge system in similar ways. We intuitively use this knowledge system when we encounter foreign individuals to mentally categorise these individuals with regard to their "personality" and to form impressions about how they may behave towards us. But even if first impressions do not always prove to be fully accurate, they provide a sense of security in dealing with unknown individuals and offer clues by which we adjust our behaviours also proactively.

The ability to deal peacefully with foreign or even anonymous individuals is so common in our daily lives that, at first glance, it does not seem to be any special. But it may be uniquely human, at least when only mammalian species are considered. Even our closest living relatives, the nonhuman primates, show tremendous difficulties in dealing peacefully with unknown conspecifics. We are able to sit tight and calmly next to strangers, such as in public transport.

But for many other species, encounters with strangers are extraordinarily stressful and often involve aggressive conflicts, some even with fatal outcomes. "Especially in the great apes who are often so amazingly similar to us with regard to many social and cognitive abilities, is

is often disturbing to see how stressful encounters with strangers are for these individuals and how these encounters sometimes escalate into violence", says Jana Uher, the director of the study. Why is that so?

Jana Uher suggests that this is not only a consequence of other species' greater territoriality and their general lack of abstract language ability in and of itself. Instead, stressful encounters may result from a lack of ability to develop mental categories of individuals that can be used to assess unknown individuals with regard to their "personality". The researcher explains: "Without a basic knowledge of the ways in which individuals differ from one another in their behaviours; that is, without "personality" categories that are useful for differentiating between individuals, one cannot mentally categorise an unknown individual and therefore cannot deduce assumptions about how he or she may behave next. Thus, every encounter with strangers is characterised by high uncertainty and one can learn only stepwise from interactions with a stranger how he or she may tend to behave."

In view of the stressful encounters with unknown conspecifics, Jana Uher assumes that not even the great apes are able to develop mental categories of individuals and to use these categories to form impressions of others. "This may explain why, for the individuals of many nonhuman species, such encounters are often difficult, and why, in zoological institutions, introductions of new individuals are often so stressful", Jana Uher says.

The researcher emphasises, however, that individuals of many nonhuman species are able to learn over some time how particular individuals in their social environment tend to behave; otherwise, individualised relationships could not be found in other species, in particular in primates. But the ability to develop general categories about individual differences from peculiarities of single individuals and to use using these categories in social interactions seems to be a uniquely human ability. In our everyday lives, we use this ability so intuitively that, at first glance, it does not seem to be any special. Rather, its uniqueness could be revealed only through comparisons with other species. To further explore this ability, Jana Uher and her research colleagues from the ethology station of the Dutch Utrecht University investigated how humans form "personality" impressions of individuals of other species.

Our ability to recognise individual differences in the behaviour of nonhuman species was an essential prerequisite for the domestication of animals. For a long time, it was assumed that our ancestors had domesticated animals based on selective breeding for bodily features. But groundbreaking breeding experiments with farm foxes in Russia have impressively shown that selective breeding for specific individual behaviours—less fear of and aggression towards humans— results within only 30 generations in a host of physical changes through which today's domesticated animals differ markedly from their wild relatives. Stone-age fossils that resemble today's dogs more than wolves suggest that, as early as some 30,000 years ago, humans had to have already been able to mentally develop "personality" categories that are useful for differentiating individuals of other species as well.

Domesticated animals have been bred for those particular behavioural properties that we as humans can easily perceive and for which we have developed "personality" categories in our everyday language. Therefore, Jana Uher and her research team explored how humans develop "personality" impressions of individuals of a nonhuman species with which the observers were previously inexperienced—crab-eating macaques from Southeast-Asia.

In the ethology station's colony, which has been studied for their social behaviours for decades already, 91 students of behavioural biology first learned about this particular monkey species and about scientific methods of behavioural observation. Then the students worked in pairs; each pair intensely observed 5 monkeys over 5 days and systematically recorded their behaviours. Thereafter, they assessed their 5 monkey individuals with two "personality" questionnaires. In addition, 8 researchers from the ethology station assessed the monkey individuals, many of which they had known for several years.

The results were intriguing. "I had assumed that observations of just 5 individuals of a species with which one was previously not familiar would not be sufficient to form impressions of their individual peculiarities that would be comparable to the impressions that other observers formed of the monkeys several weeks later and, importantly, that would be comparable to the experts' impressions. But astonishingly, we found hardly any differences", says Jana Uher. Moreover, to get to know individuals, 5 days is only a very brief amount of time, despite the use of systematic scientific observations. "Without the robust findings that we obtained from 6 study waves over 3 years, I would have had doubts about whether this could be possible at all", she says. This shows how quickly we form impressions of individuals of other species and how similar the impressions are that we form of them. But how accurate are they?

To find this out, the researchers used a novel paradigm to categorise individual differences. In contrast to previous studies, these new approaches are not based on human's everyday language, but instead on the behavioural repertoire of those individuals whose "personality" is under study; in this case crab-eating macaques. "These new approaches enable us to clearly differentiate and compare how individuals behave with what observers think about how individuals behave. This is not possible with the previous methods used in "personality" psychology that are rooted in everyday language", explains Jana Uher. She has developed the new paradigm and has already applied it successfully in studies on individual behaviours of capuchin monkeys and great apes and on human observers' impressions of these individuals' "personality".

The results were amazing. The observers judged younger crab-eating macaques as more curious and impulsive than older ones, high-ranking monkeys as more impulsive than low-ranking ones, and females as more clean than males. But none of these age, status and sex differences were found in the monkeys' behaviours. Moreover, younger monkeys behaved more anxiously than older ones and males more anxiously than females, but this was not reflected in the observers' "personality" judgements. The results are consistent with stereotypical beliefs about human individuals. This shows that such beliefs can also bias judgements about monkey individuals in anthropomorphic ways.

As human "personality" differences have been studied almost exclusively with questionnaires so far, it is still unknown in what ways "personality" judgements of human individuals are biased by stereotypical beliefs, such as about persons of different age, sex/gender or social and ethnic background. Judgements reflect what people think about and how they describe themselves and other humans or even individuals of other species—but judgements cannot reflect how the judged individuals actually behave. Only comparisons with the individuals' behaviours can show to what extent we form accurate impressions of individuals through our "personality glasses" and in what ways we jump too quickly to using our everyday knowledge and potential stereotypical or anthropomorphic beliefs.

Scientific publications:

Uher, J., Werner, C. S. & Gosselt, K. (2013). From observations of individual behaviour to social representations of personality: Developmental pathways, attribution biases, and limitations of questionnaire methods. *Journal of Research in Personality, 47,* 647–667. (Download article) DOI: 10.1016/j.jrp.2013.03.006

Uher, J. (2013). Personality psychology: Lexical approaches, assessment methods, and trait concepts reveal only half of the story. Why it is time for a paradigm shift. *Integrative Psychological and Behavioral Science, 47,* 1-55. (Download article) DOI: 10.1007/s12124-013-9230-6

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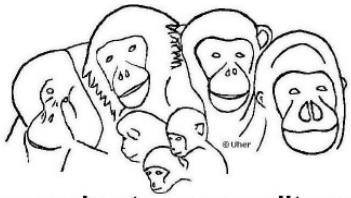

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