Stereotyping

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Logic textbooks ignore stereotyping, even though 'stereotyping' is the most commonly used fallacy label. This paper defines the term, and discusses:

- under what conditions stereotyping is mistaken,
- whether it can be morally objectionable even if epistemically warranted,
- its relationship to other forms of reasoning,
- how to recognize and respond to stereotyping, and
- how to avoid committing the fallacy.

KEY WORDS: argument schemes, biases, debiasing, fallacies, Implicit Association Test, mistaken stereotyping, profiles of dialogue, stereotypes, stereotyping

1. INTRODUCTION

A search in July 2016 turned up 12.6 million Web pages with the term 'stereotyping', far more than for any of 61 other fallacy terms (Hitchcock, 2017, pp. 428-429). Despite this common use, theoretical and textbook treatments of fallacies ignore stereotyping. It does not occur in what Woods (1992; 2004) calls "the gang of eighteen" traditional fallacies surveyed by Hamblin (1970, pp. 9-49) or among the 26 traditional fallacies listed by van Eemeren and Grootendorst (1992, pp. 212-215). It is not treated in *Fallacies: Classical and contemporary readings* (Hansen & Pinto, 1995) or in introductory textbooks that discuss fallacies, such as (Johnson & Blair, 1993), (Copi & Cohen, 2002), (Hurley, 2006), (Bailin & Battersby, 2010), and (Groarke & Tindale, 2012).

I propose therefore to provide an account of stereotyping, one that could be used as the basis of a treatment of the phenomenon in an introductory textbook. I start by defining the term 'stereotyping' as the label for a certain type of reasoning. I then discuss under what conditions this form of reasoning is mistaken, and consider when non-mistaken reasoning of this form is nevertheless morally objectionable. I

discuss the relationship of this form of reasoning to other forms of reasoning. Finally, I discuss how to recognize and respond to mistaken stereotyping and how to avoid mistaken stereotyping in one's own thinking and communicating.

2. A DEFINITION OF 'STEREOTYPING'

2.1 Stereotypes

According to the *Oxford English Dictionary* (Murray et al., 1971/1933), the word 'stereotype' came into the English language at the end of the 18th century as the name for a new process of printing from a solid plate, the name combining two Greek words, '*stereos*' (solid) and '*typos*' (type, outline). The word became used for the plate itself, and then figuratively for something constantly repeated without change, such as a stereotypical phrase. The dictionary does not record a use of 'stereotype' as the name of a fixed belief about a human group, even though this use occurs as early as Walter Lippmann's *Public Opinion* (Lippmann, 1922), which devotes one-fifth of its pages to the role of stereotypes in forming public opinion. In keeping with the word's etymology, its various uses have in common a reference to something fixed that produces the same result whenever it is used.

Nowadays, people use the word 'stereotype' quite broadly. In an online list of sentences using the word 'stereotype',[1] people are said to have stereotypes about individual people (Jesus), institutions (the church), places (modern London), doctrines (moderate liberal feminism), and activities (using the Internet, cruises). But the most frequent objects of stereotypes in these examples are human groups, distinguished in various ways: by their recreational activities (gaming, sports, abusing drugs), their clothing (sweaters, vests), their ethnic group (Moor, white man, Asians, the Irish, Jersey Italian families), their views (bigots), their occupation (cowboys), their sexual orientation (male heterosexuals, lesbians), or their medical diagnosis (children with autism spectrum disorder). In these examples, calling a characterization a stereotype generally goes with a challenge to its accuracy. In the quoted sentences, the holders of the stereotypes are not identified; rather, the mentioned stereotypes are treated as generally accepted. The attributed features are predominantly mental traits (treacherous, noble, overly anxious and insecure) or ongoing behavioural patterns (neither quiet nor thoughtful, a casanova, ready to move in with a sexual partner after a couple of dates, unaffectionate, fond of drink, having mob links). There is one attribution of a physical feature (being short) and

[1] At https://sentence.yourdictionary.com/stereotype; accessed 2019-09-12.

one of skin colour and sex (white male). The last-mentioned example attributes membership in a certain group to people with an ongoing mental trait, rather than vice versa, as in the other examples. We can thus extract from these examples a central or prototypical meaning of 'stereotype' in one of its current senses as *a fixed association in a person's mind of one or more ongoing behavioural or mental traits with membership in a human group identified by such factors as sex, ethnic status, stage of life, occupation, sexual orientation, clothing or recreational activities*.[2] Stereotypes are expressed linguistically as "bare plural generics"—i.e. quantified sentences with no explicit quantifier, such as 'the Irish are fond of drink' or 'bigots are white men' (two examples in the cited list of sentences). In the mind of its holder, a stereotype is a belief, possibly implicit, which philosophers and psychologists characterize variously as a concept (conceived as a prototype), a stage on the way to forming a concept, or an informational structure associated with a concept (Beeghly, 2015). People use stereotypes to categorize individual human beings and form expectations of them based on those categorizations.

The proposed definition of the term 'stereotype' deliberately uses the phrase 'human group'. Hacking (1991, p. 118) introduces in a discussion of natural kinds a useful distinction between a sub-kind and a kind-derived sub-group, a distinction that we can apply to people, who are a natural kind. A sub-kind, he writes, has a large and plausibly inexhaustible set of properties that its complement lacks, whereas a kind-derived sub-group does not. Thus, for example, Manx cats are a sub-kind of cats, because they share a large set of properties that non-Manx cats lack. But white cats are merely a sub-group derived from the kind cats, because they do not share a large set of properties that non-white cats lack. Applying this distinction to people, one might suppose that men share a large set of properties that women lack but that "white" (i.e. fair-skinned) people do not share a large set of properties that non-white people lack. If so, men would be a sub-kind of human beings, whereas white people would be a kind-derived sub-group. Since people hold stereotypes both about men and about white people, the

[2] Schneider (2005, p. 24) defines a stereotype as "qualities perceived to be associated with particular groups or categories of people". Like the above definition, his definition omits any theoretical explanation or evaluation of stereotypes and includes associations in either direction between group membership and qualities. It differs from the above definition in leaving unspecified how long a stereotype is held, what sorts and duration of qualities it attributes, and how the stereotyped human groups are characterized. It also differs in requiring more than one associated quality and in calling the association "perceived" rather than merely "in a person's mind". The differences seem inconsequential.

definition proposed in this paper uses the phrase 'human group' rather than, for example, the phrase 'social kind', which some definitions of 'stereotype' use.

The definition says nothing about whether people acquire stereotypes mostly by personal experience or mostly by cultural influences, how inflexibly people apply them to individual members of human groups about which they have stereotypes, or how easily and in response to what sorts of influences people change their stereotypes—issues that have been studied extensively by social psychologists, as reported for example by Schneider (2005).

2.2 Stereotyping

Stereotyping comes in stages (Beeghly, 2015). It begins with activation of a stereotype—e.g. thinking of Americans as optimistic or of Canadians as apologetic. The activated stereotype may then function as a reason for, or an unconscious causal influence on, some conclusion or decision. At this stage, it may be the primary influence, in the sense that the conclusion or decision would not have been reached without the activation of the stereotype. At the final stage, the stereotype may receive public expression, for example in a cartoon or an offhand remark. The activation and mental use of a stereotype may go on quite unconsciously and more or less simultaneously. A particularly problematic kind of stereotyping is the application of a stereotype to an individual without any other basis for judging that person. We can define this kind of stereotyping as follows:

> To stereotype a person is to attribute to them a pattern of behaviour or mental trait on the sole basis of a stereotype of a group to which the person is assumed to belong or to attribute to them membership in a human group on the sole basis of an exhibited pattern of behaviour or mental trait.

3. EVALUATION

Stereotyping a person is a kind of inference, in which the stereotype is used to license a move from the assumption that the person belongs to a certain human group to the conclusion that the person fits the stereotype, or vice versa. The first kind of inference has the following form:

> <Person x> belongs to <human group G>.
> Therefore, <person x> has <behavioural or mental trait F>.

The second kind of inference has the converse form:

> <Person x> has <behavioural or mental trait F>.
> Therefore, <person x> belongs to <human group G>.

To evaluate an inference of either type, one needs to determine whether the inference has a covering generalization that holds in all or most or all normal cases—including counter-factual cases (Hitchcock, 2011). Stereotypes however are not expressed as universal or for-the-most-part or *ceteris paribus* generalizations. As mentioned earlier, they are expressed as bare plural generics, i.e. as unqualified generalizations. Hence one needs a theory about the truth-conditions for bare plural generics to determine (a) whether an assumed inference-licensing stereotype is true and (b) whether it is equivalent to a counter-factual-supporting universal or for-the-most-part or *ceteris paribus* generalization.

There is broad consensus about which bare plural generics concerning natural kinds are true and which are false. For example, everyone with minimal knowledge about ducks and pigeons would agree that it is true that ducks quack and false that pigeons give birth to live young. But there is no consensus on the underlying explanatory logical form and semantics of bare plural generics. Some accounts treat bare plural generics as predications about the kind, either simple kind predications (Liebesman, 2007) or sophisticated ones (Teichman, 2015). Most treat them as predications about members of the kind, either saying what they are normally like (e.g. Nickel, 2016) or what most of them are like (e.g. Tessler & Goodman, 2019). Although these accounts treat them as *ceteris paribus* or for-the-most-part generalizations, they are hedged with qualifications, in order to fit test cases of bare plural generics with a known truth-value. True bare plural generics tolerate exceptions, sometimes a large percentage of exceptions. For example, it is true that ducks lay eggs, but the only individual ducks that lay eggs are adult female ducks, who are a minority of ducks. It also true that sea turtles live to 80 or 90 years, but only about one in 1,000 sea turtle hatchlings survives to adulthood. Another striking fact about true bare plural generics about natural kinds is that their truth has a theoretical explanation, whether biological, chemical or physical. Their truth is not just an accidental fact.

It is a reasonable assumption that bare plural generics about human groups have the same logical form, semantics and truth conditions as bare plural generics about natural kinds. Why would the truth conditions be different in the case of “black” (i.e. dark-skinned) people than in the case of black cats? Without taking sides in the

ongoing scholarly debate about the underlying logical form and semantics of bare plural generics, we can take advantage of Hacking's distinction between kind-derived groups that are sub-kinds and kind-derived groups that are not. On his account, a human group is a sub-kind if and only if it has a large and plausibly inexhaustible set of properties that its complement lacks. Black people, for example, are a sub-kind if and only if they have a large and plausibly inexhaustible set of properties that non-black people lack. If black people are a sub-kind in this sense, then there are true bare plural generics about black people—those that attribute to them the properties that black people typically share but non-black people typically lack. Conversely, if black people are not a sub-kind in this sense, then probably the only true bare plural generic about them is the uninformative tautology that black people are black. According to a current consensus in physical anthropology (Sinha, 2011), although human populations that have evolved separately differ in various genetically based respects from one another, quite distinct populations include people with dark skin. Hence, in all probability the only bare plural generic true of black people is that they are black. Hence no stereotype about black people is true.

On the other hand, one's sex or racial/ethnic sub-group entails (or at least makes probable) distinctive characteristic properties, which may include behavioural or mental traits (Freedman & Freedman, 1969). One's occupation, religious affiliation, nationality or educational specialization may also entail (or make probable) distinctive behavioural or mental traits; if so, groups defined by these variables would be human sub-kinds on Hacking's criterion, but distinguished culturally rather than biologically.

Thus many stereotypes used to license inferences are true. But do they license those inferences? To serve as inference-licenses, they need to support counter-factual instances. Their truth cannot be merely accidental. Suppose for example that Canadians really are apologetic. To license an inference, this stereotype would have to hold counter-factually, in the sense that (for example) Germans would be apologetic if they were Canadians. Further, the truth of an inference-licensing stereotype would have to amount to the truth of a *ceteris paribus* or for-the-most-part generalization, given that stereotypes are taken to have exceptions and so not to amount to universal generalizations. It should not tolerate such a large percentage of exceptions as the true generic statements that ducks lay eggs and sea turtles live to 80 or 90 years.

We can thus conclude that stereotyping a person is a valid form of reasoning if a stereotype that would license the inference is true of most people in the stereotyped group or is normally true of people in the stereotyped group, provided that the truth of this stereotype has a theoretical basis and is not merely accidental. If the premiss of such

reasoning is correct, then the conclusion is either probably or presumably correct, relative to this premiss. Additional true information compatible with the truth of the premiss and of the inference-licensing stereotype can rebut this conclusion, showing that it is false. In particular, since all stereotypes have exceptions, the person about whom the inference is drawn may not fit the stereotype. These conditions for justified stereotyping can be represented in the standard form of an argument scheme with critical questions (Walton, Reed & Macagno, 2008). One critical question concerns the truth of the premiss, three concern the adequacy of the assumed stereotype as an inference-license, and one concerns whether the stereotyped person is an exception to a generally or provisionally accurate stereotype.

The criteria for valid stereotyping that are proposed in the preceding paragraph hold independently of the mental state of a person doing the stereotyping or of a person evaluating their reasoning. But people do not have direct access to them. They must rely on beliefs that the criteria are met, which should be justified if the inference is to be epistemically legitimate.

Stereotyping a person is on the present account not a fallacy. The fallacy is not stereotyping, but mistaken stereotyping. Stereotyping is mistaken when one of the conditions for valid stereotyping is not met or a defeater of valid stereotyping is ignored. These failures consist in (1) falsehood of the premiss or (2) falsehood of the stereotype used to license the inference or (3) non-equivalence of the stereotype to a *ceteris paribus* or to a for-the-most-part generalization or (4) merely accidental truth of this stereotype or (5) the fact that the stereotyped person does not fit the stereotype. Epistemically, a person who applies a stereotype to a person is mistaken in doing so if they either (a) lack adequate justification for holding either (1) that the stereotyped person belongs to the stereotyped group or (2) that members of the stereotyped group have the inferred feature or (3) that the stereotype is equivalent to either a *ceteris paribus* or a for-the-most-part generalization or (4) that the stereotype holds counter-factually rather than merely accidentally, or (b) fail to take into account practically available evidence that the stereotyped person does not fit the stereotype, or (c) draw the conclusion as holding definitely rather than in a qualified way as holding with probability or provisionally. These six conditions constitute the fallacy of mistaken stereotyping.

Stereotyping can unjustly harm the stereotyped person (Banaji and Greenwald, 2016/2013). Even if such stereotyping is epistemically justified, it is morally unjustified. In general, epistemically justified stereotyping is morally unjustified when morality requires definite (rather than probable or presumptive) attribution of the inferred

property and an inference-licensing universal generalization is not epistemically justified.

Stereotyping is a kind of argument from sign, where membership in a specified human group is taken to be a sign of an ongoing behavioural or mental specified trait, or vice versa. Since even true stereotypes have exceptions, stereotyping is never a conclusive argument from sign. It can make it probable that the stereotyped person has the inferred feature, or establish a presumption to that effect. The conditions for such successful reasoning or argument are similar to those for a successful non-conclusive argument from sign. Formation of a false stereotype may be due to hasty generalization on the basis of limited experience of members of the stereotyped group or to unjustified reliance on other people's say-so (i.e. the fallacy of *argumentum ad verecundiam*). Definitive attribution of a behavioural or mental trait on the basis of group membership (or vice versa) is due to confusion of a for-the-most-part or provisional generalization with a universal generalization, which could be treated as a kind of *secundum quid* fallacy (dropping the qualification).

4. RECOGNIZING, RESPONDING TO, AND AVOIDING STEREOTYPING

Stereotyping is hard to recognize, because it is often implicit, for example in a person's emotional response to, or behaviour towards, another person. Banaji and Greenwald (2016/2013) report, for example, that on average participants in a study of characteristics preferred in a quiz show teammate traded nine IQ points for a partner who was thinner; these participants are unlikely to have verbalized their implicit stereotype of fat people as dumber than thin people. If someone makes a judgment about another person that appears to be based on their membership in some human group, a tree of possible responses and counter-responses opens up. A diagram of this tree in a "profile of dialogue" (Krabbe, 1999) would be too complicated for display here. The following sequence should give some idea of the possibilities:

> *Proponent*: Person x has behavioural or mental trait F.
> *Opponent*: You are stereotyping x.
> *P*: What makes you think that?
> *O*: You are basing your judgment solely on the fact that x is a member of group G.
> *P*: I am. So what? Gs have trait F.
> *O*: All of them?
> *P*: No.
> *O*: Most of them?

P: Well, I'm not sure.
O: And is it anything more than an accident that some Gs have trait F?
P: I'm not sure.
O: Well, you need more evidence that x has trait F, don't you?
P: I guess I do.

It is hard to avoid mistaken stereotyping in one's own thinking and one's responses to others, because all people stereotype and they often do so quite unconsciously (Schneider, 2005; Banaji & Greenwald, 2016/2013, p. 89). Social psychologists generally interpret the universal human tendency to slot people they meet into groups distinguished by sex, age, skin colour, and other characteristics as a side-effect of a tendency to categorize living organisms and to associate properties with each kind—a tendency that is likely to have been selected for in human evolutionary history. The tendency cannot be turned off. One can take various Implicit Association Tests online[3] to discover one's implicit automatic associations, starting with discovering whether one has an implicit automatic association of flowers with pleasant things, and if so how strong it is.[4] The experience of taking the flower-insect test gives one a sense of the way in which automatic associations make sorting tasks easier or harder, and thus provides evidence of the validity of Implicit Association Tests. Having had this experience, one can then test one's implicit associations with groups distinguished by sex, age, skin tone, race, sexual orientation, and other characteristics. Such implicit associations are not necessarily stereotypes in themselves, but they are likely to reflect stereotypes.

What can one do to counteract such "hidden biases"? Beaulac and Kenyon (2014) usefully distinguish four levels of "debiasing", ranging from the most internal and least effective to the least internal and most effective. Level 1 debiasing involves upbringing or education that prevents formation of the bias or eliminates it. According to the "contact hypothesis", bringing people of different groups together to get to know each other will change false stereotypes and reduce prejudice. Schneider (2004) reports that contact has been shown to change false stereotypes if people have mutually positive experiences from their interaction, have roughly equal status, and contact each other in a context that has institutional support for change. It helps, he says, if contact is intimate enough to lead to personalization. There is a

[3] At https://implicit.harvard.edu/implicit/; accessed 2019 09 12.
[4] This test is available at https://implicit.harvard.edu/implicit/user/agg/blindspot/indexflowerinsect.htm; accessed 2019 09 12.

typicality paradox: if a person is seen as typical of the stereotyped group, they will not produce enough disconfirming evidence to change the stereotype; but a person seen as atypical may be sub-typed as an exception and provide no incentive for change. Even if effective, Schneider claims, contact may only work at the surface to change the association between categories and features. He thinks that fundamental change is likely to occur when people's theories about why the category and its features hang together change—a change best promoted, he thinks, by educational efforts.

Level 2 debiasing involves training to recognize and correct for mistaken stereotyping. According to Schneider (2004) and Beaulac and Kenyon (2014), however, trying to suppress mistaken stereotypes can be counter-productive. Further, despite the training, one may fail to notice that one is stereotyping. Level 3 debiasing addresses this problem by supplementing training with situational nudges that prompt recognition that one is stereotyping; for example, members of a hiring committee may be reminded of the employer's policy of non-discrimination on such grounds as sex, race, ethnic origin, or religion. Level 4 debiasing makes biases (whether or not they are due to mistaken stereotyping) inoperative by concealing the group membership of individuals who are being evaluated; examples of such debiasing include blind peer review, blind grading of students' work, and having applicants for an orchestra position play behind a screen. Such concealment is not always feasible.

5. SUMMARY

A stereotype, in the sense discussed in this paper, is a fixed association in a person's mind of one or more ongoing behavioural or mental traits with membership in a human group identified by such factors as sex, ethnic status, stage of life, occupation, sexual orientation, clothing or recreational activities. An example is the common stereotype of athletes as dumb (i.e. not very smart). To stereotype a person is to attribute to them a pattern of behaviour or mental trait on the sole basis of a stereotype of a group to which the person is assumed to belong or conversely to attribute to them membership in a human group on the sole basis of an exhibited pattern of behaviour or mental trait. An example is assuming that the driver of a car that is being driven in a recklessly aggressive manner is a young man. Stereotyping in this sense is a kind of argument from sign, in which membership in the human group is taken to be a sign of the behavioural or mental trait, or vice versa. The inference is correct if and only if a stereotype that would license the inference is true of most people in the stereotyped group or is normally true of people in the stereotyped group, provided that the

truth of this stereotype has a theoretical basis and is not merely accidental. It is epistemically legitimate to stereotype a person if one has good reason for thinking that this inferential condition is met, one has good reason for thinking that the premiss is true of the person, one has no good reason to think that the person is an exception to the stereotype, and one draws the conclusion in a qualified way as holding probably or provisionally. The fallacy of mistaken stereotyping consists of stereotyping a person when one either (a) lacks adequate justification for holding either (1) that the stereotyped person belongs to the stereotyped group or (2) that members of the stereotyped group have the inferred feature or (3) that the stereotype is equivalent to either a *ceteris paribus* or a for-the-most-part generalization or (4) that the stereotype holds counter-factually rather than merely accidentally, or (b) fails to take into account practically available evidence that the stereotyped person does not fit the stereotype, or (c) draws the conclusion as holding definitely rather than in a qualified way as holding with probability or provisionally. Formation of a false stereotype may be due to hasty generalization from experience or to cultural influences (whose acceptance involves an *ad verecundiam* fallacy). Epistemically justified stereotyping is not morally justified when morality requires definite attribution of the inferred property (not just probable or presumptive attribution) and an inference-licensing universal generalization is not epistemically justified.

Because stereotyping is often implicit and unconscious, it is hard to recognize when other people are mistakenly stereotyping someone and even harder to avoid doing so oneself. A profile of dialogue in response to a charge of (mistaken) stereotyping would be quite complex, given the variety of ways in which one could substantiate such a charge and the variety of possible responses to each possible substantiation. Contact has been shown to change false stereotypes if the people contacting each other have mutually positive experiences from their interaction, have roughly equal status, and contact each other in a context that has institutional support for change. Attempts to avoid mistakenly stereotyping another person are most successful if they rely either on such external influences as situational nudges to prompt recognition that one is stereotyping or on blindness to what group the other person belongs to.

REFERENCES

Bailin, S., & Battersby, M. (2010). *Reason in the balance: An inquiry approach to critical thinking*. Toronto: McGraw-Hill Ryerson.

Banaji, M. R., & Greenwald, A. G. (2016/2013). *Blindspot: Hidden biases of good people*. New York: Bantam. Hardback edition first published in 2013.

Beaulac, G., & Kenyon, T. (2014). Critical thinking education and debiasing. *Informal Logic, 34*(4), 341-363.

Beeghly, E. (2015). What is a stereotype? What is stereotyping? *Hypatia, 30*(4), 675-691.

Copi, I. M., & Cohen, C. (2002). *Introduction to logic*, 11th edition. Upper Saddle River, NJ: Prentice-Hall.

Eemeren, F. H. van, & Grootendorst, R. (1992). *Argumentation, communication, and fallacies: A pragma-dialectical perspective*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Freedman, D. G., & Freedman, N. C. (1969). Behavioural differences between Chinese-American and European-American newborns. *Nature*, *224*(5225), 1227.

Groarke, L. A., & Tindale, C. W. (2012). *Good reasoning matters: A constructive approach to critical thinking*, 5th edition. Don Mills, ON: Oxford University Press.

Hacking, I. (1991). A tradition of natural kinds. *Philosophical Studies, 61*(1), 109-126.

Hamblin, C. L. (1970). *Fallacies*. London: Methuen.

Hansen, H. V., & Pinto, R. C. (1995). *Fallacies: Classical and contemporary readings*. University Park, PA: Pennsylvania State University Press.

Hitchcock, D. (2011). Inference claims. *Informal Logic, 31*(3), 191-228.

Hitchcock, D. (2017). *On reasoning and argument: Essays in informal logic and on critical thinking*. Dordrecht: Springer.

Hurley, P. (2006). *A concise introduction to logic*, 9th edition. Belmont, CA: Wadsworth/Thomson.

Johnson, R. H., & Blair, J. A. (1993). *Logical self-defense*, 3rd edition. Toronto: McGraw-Hill Ryerson.

Krabbe, E. C. (1999). Profiles of dialogue. In J. D. Gerbrandy, M. J. Marx, M. de Rijke & Y. Venema (Eds.), *JFAK: Essays dedicated to Johan van Benthem on the occasion of his 50th birthday* (Vol. 3, pp. 25-36). Amsterdam: Amsterdam University Press.

Liebesman, D. (2011). Simple generics. *Noûs, 45*(3), 409-442.

Lippmann, W. (1922). *Public opinion*. New York: Harcourt, Brace and Company.

Murray, J., et al. (1971/1933). *Oxford English dictionary*, compact edition, 2 vols. Oxford: Oxford University Press. Micrographic reproduction of the 12-volume edition first published in 1933.

Nickel, B. (2016). *Between logic and the world: An integrated theory of generics*. New York: Oxford University Press.

Schneider, D. J. (2005). *The psychology of stereotyping*. New York: Guilford Press.

Sinha, R. (2011). Unit 2: Distribution and characteristics. In S. M. S. Chahal, R. Sinha, K. D. Sharma, & A. N. Sharma, *Biological diversity* (pp. 17-31). New Delhi: Indira Gandhi Open University. Available at http://14.139.40.199/bitstream/123456789/41421/1/MANI-002B4E.pdf; accessed 2019-09-12.

Teichman, M. (2015) *Characterizing kinds: A semantics for generic sentences*. (Doctoral dissertation). Retrieved from http://home.uchicago.edu/~teichman/dissertation.pdf.

Tessler, M. H., & Goodman, N. H. (2019). The language of generalization. *Psychological Review 126*(3), 395-436.

Walton, D., Reed, C., & Macagno, F. (2008). *Argumentation schemes*. New York: Cambridge University Press.

Woods, J. (1992). Who cares about the fallacies? In F. H. van Eemeren, R. Grootendorst, J. A. Blair, & C. A. Willard (Eds.), *Argumentation illuminated* (pp. 23-48). Amsterdam: SICSAT.

Woods, J. (2004). *The death of argument: Fallacies in agent-based reasoning*. Dordrecht: Kluwer.