Categories of Wrong Beliefs—A Preliminary Proposal

Linda Brakel[1]

1 University of Michigan - Ann Arbor

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.

Abstract

Wrong beliefs, known by some as ‘alternative facts’, have recently spread widely, causing damage in important areas of human life, including social, political, and public health domains. This article is a preliminary proposal consisting of two aspects. First, an analogy to biologic stigmergic effects is drawn. The claim is that social media products are the potent drivers of wrong belief proliferation rather than iterative individual person-to-person communications. Second, the article offers an epistemological category classification of wrong beliefs, with the following mappings: a) ‘No-Information’ marked by willful blindness results in ‘Empty Beliefs’; b) ‘Mis-Information’ yields ‘Mis(taken) Beliefs’; and c) ‘Dis-Information’ predicated on blatant distortions produces ‘Dis(torted) Beliefs’. This simple classification system is not merely epistemologically satisfying; it is functionally useful, providing a foundational definitional distinction between mis-information and dis-information—terms too often used interchangeably. To distinguish them will allow (even promote) basic research to go forth—for example by statistically tracking differential tendencies of malignant/distorted dis-information vs. mistaken/mis-information spread. Moreover, this sort of research could ultimately lead the way to positive policy implications.

Keywords: Stigmergy; Wrong-Beliefs; Empty-Beliefs; Dis(torted)-Beliefs, Mis(taken)-Beliefs, Misinformation; Disinformation.

1. Introduction

Beliefs (more formally beliefs-proper) are cognitive propositional attitudes that aim at the truth. (Velleman, 2000, p.16). Beliefs can be false and thereby believed falsely. However, since beliefs are regulated by their truth conditions—a function of reality tested evidence for or against them—once there is probative evidence that a belief is false, it must be no longer be believed (Brakel, 2009, p. 105). Although the status of beliefs has not changed over the last decade, there has been a sea change: There is now a robust endorsement of believing false beliefs, evidence of their falseness notwithstanding. I shall call the false beliefs that are nonetheless believed ‘Wrong beliefs’.

Wrong beliefs, often termed ‘alternative facts’ by ardent proponents, have proliferated of late, arguably in greater profusion

than was the case previously, and likely with more damaging effects. This has been most notably the case with regard to vital issues, including those pertaining to social, political, and public health issues—the last contributing to unnecessary COVID-19 deaths. In this brief communication I will propose an epistemological classification of such wrong beliefs, differentiating among three types: Two are funded by different informational 'knowledge' bases, while the third owes to qualities residing in the information receiver. I shall also make a prior claim that mis-beliefs and dis-beliefs, the two with 'knowledge' bases, give rise to their faulty wrong beliefs via potent stigmergic effects, more so than they do via direct person-to-person influences—these stigmergic effects, analogous to many biological phenomena.

The importance of the proposed classification goes beyond epistemological clarity. It minimally allows for basic research, e.g., establishing significant statistical differences among the various types of wrong beliefs. It could further point the way toward reasoned regulatory restraints on particularly malevolently-intended wrong information masquerading as knowledge.

2. Stigmergy—Biological

Discussed initially with respect to social insects such as termites and their mound constructions, stigmergy pertains to the work-product of agents influencing the action of other agents. The experiencing agents react to this work-product, the work-product having far greater influence than does (and would) direct agent-to-agent influence. For example, and quite interestingly, if a bee produces a defective hive part, for any of a variety of environmental accidents or biological errors, subsequent serious errors in the final hive result. (See Gallo, Bridges, Woodgate, & Chittka, 2022.)

Of further biological importance, the steps necessary in the development of metastatic disease provide another clear example of stigmergic influence. At various stages of tumor growth, some number of cancer cells within the tumor produce specific proteins and other biochemicals—these products, rather than the tumor cells themselves—signal other cells (e.g., inflammatory, immune cells, and cells providing structural support) so as to promote cancer cell transformation toward increased immune-resistance, migration, invasion, and colonization of other locations—in other words metastasis. (See Miller & Torday, 2017; Bergman & Gligorijevic, 2015; Mittal, 2018.)

3. Stigmergy—Social, Media, Social-Media

Human beings, I am suggesting, although we are of course directly influenced by other people—experts, celebrities, and leaders from afar, and at close hand by family, friends, and acquaintances— are even more effected in a stigmergic fashion by the media-products of other people. This influence comes from general media exposure, of which almost everyone is subject—although even here the content can vary depending on one's general media source—and one's own particular silo of social media, which can be very disparate indeed.

Taking the case of COVID-19 vaccine refusal—a highly deleterious medical decision made by vastly too many—as a potent illustrative exemplar (See Brakel & Foxall, 2022), let me outline three pathological types of informational

'knowledge' problems, each predicated on the stigmergic product effects of media and especially social-media.

A. First, there are persons who belong to the category 'No-Information'. Despite all sorts of opportunities to avail themselves of well (and even poorly) vetted information, people in this group claim to know nothing about the approved COVID-19 vaccines.
B. Second, there are persons who have been influenced by data that is wrong about the sanctioned COVID-19 vaccines. For example, information suggesting that the newer m-RNA vaccines are not sufficiently tested, or that the m-RNA vaccines, along with the more standard vaccine types, are not useful in preventing serious disease and hospitalization. This group can be categorized as those who have been subject to 'Mis-Information'.
C. Finally, the third group has consumed media/social media about the approved COVID-19 vaccines aimed at spreading information that is not just wrong, but inflammatory and dangerous. For instance, people in this group have received 'information' suggesting that the m-RNA vaccines involve implanting a chip in which the vaccinated person can be surveilled; and/or that the vaccine, while promoted as life-saving, can really cause death. This group believes that alternatives, like the animal worming medication ivermectin, are helpful, while in reality these 'alternative treatments', particularly veterinary medications cause serious illnesses in human beings. This third group can be categorized as receivers of 'Dis-Information'.

4. Epistemological Mapping

The relevance for epistemology can be seen by mapping the above groups onto considerations concerning 'beliefs' in the following way:

A. The first group, those with 'No-Information', in this case about COVID-19 vaccines that have proved effective, seem to have adopted willful blindness to the prodigious amounts of media (stigmergic) products on this topic. As such their beliefs about COVID-19 vaccines should be characterized as 'Empty Beliefs'.
B. The second group with stigmergic 'Mis-Information' about the COVID-19 vaccines possess 'Mis-Beliefs' –fully spelled out as, 'Mis(taken) Beliefs'. Here the harm is considerable, but not as inflammatory and contagious as will be seen in the next category. Mis-informed persons, in the case of COVID-19 vaccine refusal, might refrain from vaccination, but they would be unlikely to stir others to fear regularly scheduled vaccines, nor to promote dangerous far reaching conspiracy outcomes.
C. The third stigmergically influenced group can feel duty-bound to contribute further stigmergic 'Dis-Information'. This is done by producing media and social-medial products targeted toward spreading highly disturbed and disturbing conspiracy-laced falsehoods, aimed not only at reaching other people, but seeking to enlarge the field of these harmful 'alternative facts' to encompass other related matters, such as the advisability of receiving other formerly standard vaccinations, and complying or even considering other public health recommendations. This third group is under the sway of 'Dis-Information' or to state this in a more fully realized fashion 'Dis(torted) Information'. As such, this group epistemologically holds 'Distorted Beliefs'

5. Conclusions—So What?

Can this mapping be useful? While it can be intellectually pleasing to derive a spare classification scheme featuring a simple one-to-one pairing, one must wonder whether or not such an exercise has some pro-social use. At a time when the issues about regulating social media involve free speech, free press, and other freedoms (mostly 'freedoms-to', rather than 'freedoms-from'), this is a hard call. And yet, perhaps rather stringent regulations could be reasonably applied to those stigmergic products of media and social media output that are considered 'Dis-Information' leading to 'Dis(torted) Beliefs'; whereas sites of simple 'Mis-Information' could be handled more benignly, as the attendant 'Mis(taken) Beliefs' are indeed less malignant.

But beyond this sort of speculation, and temporally prior to it, there is a real and current advantage to the epistemological categorization I've offered. Successful basic research demands clearly demarcated research terms. Only then can the differential proliferative tendencies of mistaken beliefs/mis-information vs. distorted beliefs/dis-information be empirically discovered. And, only with such distinct research terms can one, for example, then track which groups are advantaged vs. groups disadvantaged by malignant/distorted vs just mistaken/mis-informational spread. Finally, it is my belief (true, not wrong) that such basic definitional clarity is an important foundation to successful research; research which then itself could lead the way to positive policy implications.

References

- Bergman, Aviv & Gligorijevic, Bojana, 2015, 'Niche construction game cancer cells play' in*European Physical Journal Plus*, 130, 203-205, https://doi.org/10.1140/epjp/i2015-15203-5
- Brakel, L.A.W., 2009, *Philosophy, Psychology, and the A-Rational Mind* (Oxford: Oxford University Press)
- Brakel, L.A.W & Foxall, Gordon, 2022, 'Vaccine Refusal: A Preliminary Interdisciplinary Investigation'in *Frontiers in Public Health,* 22 July 2022. Sec. Health Economics, 10,https://doi.org/10.3389/fpubh.2022.917929
- Gallo, Vincent, Bridges, Alice, Woodgate, Joseph, & Chittka, Lars, 2022, 'Placement of new comb cells built by honeybees is guided by sub-cell scale features to align with the existing layout' in *Journal of Comparative Physiology A,* https//doi: 10.1007/s00359-023-01632-y
- Miller, William B., Jr. and Torday, John, 2017, 'A Systematic Approach to Cancer: Evolution Beyond Selection' in *Clinical and Tranlational Medicine',* 6,2, https//doi.10.1186/s40169-016-0131-4
- Mittal, Vivek, 2018. 'Epithelial Mesenchymal Transition in Tumor Metastasis' in*Annual Review of Pathology: Mechanism of Disease*, 13, 395–412
- Velleman, J.David, 2000, *The Possibility of Practical Reason* (Oxford, Oxford University Press)