ŚWIAT I SŁOWO WORLD AND WORD
36|1|2021 ISSN 1731-3317
DOI: 10.5604/01.3001.0014.7958

**Alicja Bemben**

University of Silesia in Katowice
alicja.bemben@us.edu.pl
ORCID: 0000-0002-7342-7748

# *MythBusters*, or Why not "the Only Difference Between Screwing Around and Science Is Writing It down"[1]

## Introduction

Published in 1983, Umberto Eco's essay "The Return of the Middle Ages" addresses the question of how the European and American literature and culture of the decade used the Middle Ages. Listing examples of various neomedieval texts, Eco subsumes them under ten categories, each pointing to the function that the Middle Ages perform in the texts he mentions. And thus, the period in question was used as a pretext, a mere stage on which modern joys, dilemmas, etc. are presented. If not that, then the Middle Ages were revisited so that one could either fantasise or speculate about whatever he or she deemed worthy, or celebrate the "virile, brute force" of this barbaric past. Hitting a more intellectual note, Eco observes that the period was occasionally an object of interest for those wishing to present it as a source or basis of *philosophia perennis*, neo-Thomism, a particular social tradition or occult philosophy. The Middle Ages also served as a means of bolstering one's ideas by grounding these in centuries-old heritage. For example, the grandeur of some national identities was enhanced when their noble medieval ancestors were confirmed; the decadentism of the 90s was treated as a reverberation of the decadentism described in *Decameron*; those

[1] Lauren Williams, dir., "Bouncing Bullet," *MythBusters* (Beyond Entertainment, May 13, 2012).

fearful of the end of the second millennium empathised with those dreading the end of the first one. However, perhaps the most interesting uses of the epoch are the two most contrastive ones. On the one hand, Eco mentions how discretionarily the space operas of the 90s utilised medieval objects, settings, etc. In the Romantic-like fashion, spaceships were equipped, for instance, with a dungeon for no apparent reason other than the fancy of the author or director. On the other hand, Eco also allows the supposedly true Middle Ages. According to him, in the texts whose authors resort to the philological reconstruction method, we can read about the Middle Ages "closest" to what they were like indeed.[2]

As unrelated to the title of this article as Eco's taxonomy might seem, it does constitute this text's both inspiration and theoretical background. When looked at from a more abstract perspective, "The Return of the Middle Ages" is an article about popcultural texts using an aspect of our reality for various purposes. This idea might be extrapolated to a different component of our reality, i.e. science and its functioning in popcultural works. Accordingly, the popcultural uses of the Middle Ages that Eco proposes might—and, as I intend to present, effectively do—function vis-à-vis the popcultural uses of science.

Nevertheless, illustrating how diversely popculture employs scientific activity[3] is not the end-purpose of this article. Much as, in what follows, I do delve into this matter, my quintessential intention is to capitalise on Eco's ideas in two ways. Having focused on *MythBusters* as my research material, first, I demonstrate that popculture has already reached the stage at which multifold uses of science within one product are a standard. Secondly, I argue that their choice in popular-science products bears consequences on the entertain-educate-the-audience effect that such products are supposed to have. Accordingly, in the next section of this article, I offer some basic information about *MythBusters* and exemplify how diversely it makes use of scientific effort. Then, I proceed to substantiate how it is forfeited in this programme in favour of entertainment. The article is closed with the

[2] Umberto Eco "The Return of the Middle Ages," in: *Travels in Hyper Reality* (San Diego: Harcourt Brace Jovanovich, 1986), pp. 68–72. This summary is very terse, first, because I do not delve into the details of these theories in the further part of my text as they serve the function of starting points for otherwise targeted discussions; second, because, when reworking each of these points in the further part of my text, I add more elaborate explanations.

[3] In this article, I use the phrase scientific activity interchangeably with scientific effort.

conclusions section in which some of the implications of my findings are addressed.

### *MythBusters* and Its Uses of Science

*MythBusters* is an Australian-American popular-science production broadcast on Discovery Channel between 2003 and 2018. As the name of the programme implies, its point is to present various rumours, conjectures, and presumptions being debunked or validated. Hence, each episode of each series shows us how its hosts—Adam Savage and Jamie Hyneman and/or their supporting team—create scientific tests to investigate a particular myth (or rather myths). Over the course of seventeen seasons of *MythBusters*, we learn, for example, that it is perfectly possible to cook a lasagne in a dishwasher and that Jack would have survived the Titanic crash if Rose had shared the door with him.[4] Although it might seem that the broadcast is concerned strictly with science for the sake of science, in what follows, I would like to substantiate that, as a matter of fact, various types of science uses can be found in it. The already adduced theory proposed by Umberto Eco shall serve me as the background against which to do this.

*MythBusters*' concern with scientific effort *per se* is blatant. It manifests itself not only in the generic characteristics of the broadcast—popularising science—and, indirectly, in its name, but primarily in the procedure its hosts follow. Depending on the type of the myth that is to be tested, research and hypothesis formulation are interchangeably the starting points of each verification. What follows is a careful preparation—quite often (re)creation—of a particular physical situation. After the test is carried out, the hosts formulate their conclusions. For instance, when Savage and Hyneman investigate whether one indeed remains drier when running—rather than walking—in the rain, they start by giving the theme of the experiment and segue into discussing the commonsensical view on running versus walking in the rain. Subsequently, they design a one-hundred-meter-long tunnel and pepper it with sprinklers which are to generate realistic raindrops as regards their size and velocity. Then, with a detour to Trevor Wallis's and Tom Peterson's study on the same

[4] "MythBusters on Science," *Science Channel*, accessed May 11, 2020, https://www.sciencechannel.com/tv-shows/mythbusters-on-science/; Lauren Williams, dir., "Food Fables," *MythBusters* (Beyond Entertainment, November 18, 2012); Lauren Williams, dir., "Titanic Survival," *MythBusters* (Beyond Entertainment, October 7, 2012).

issue, they buy and assemble all the necessary equipment and carry out their test several times (considering various factors) to conclude on the basis of the obtained data that walking rather than running in the rain is more advisable.[5] Since this pattern explicitly bears features typical of a scientific experiment and recurs in every episode and myth-testing, one may conclude that *MythBusters* does use it in the way that, following Eco's categorisation, might be labelled as science for the sake of science.

Interestingly, its use in the programme is not limited to the one mentioned. Although Savage and Hyneman declare that they experiment "for a living,"[6] and hence, put themselves in the scientists' shoes, they employ science—again, to refer to categories mentioned by Eco—to speculate and fantasise as well. In the same episode in which they discuss the running in the rain myth, the hosts scrutinise the myth of the ice bullet. Of course, they follow the scientific experiment procedure delineated above but, more importantly, they also concatenate it with speculations whether JFK might have been killed with an ice bullet. What is more, in the episode in which alcohol-related myths are verified, it transpires that the myths were chosen because Savage had always dreamt of testing sobering-up techniques.[7] Much as the first example indicates, it is the second one that clearly shows that the purpose behind the procedure in question is—in these and many other cases—not so much for the myth-busters to gain and present a systematic scientific knowledge *per se* but to satisfy their fantasies, dreams, etc.

Additionally, these dreams occasionally make the hosts suffer at their request, and hence, reveal the more brutal side of the myth-busters' attitude towards scientific experiments. For instance, when Savage and Hyneman decide to verify whether supersonic boom energy can indeed shatter glass, more than happy Savage decides to undergo some basic training to fly the supersonic jet. Paradoxically, neither does the training include Savage piloting the jet himself nor does it—in the end—translate into such an action. When it comes to the very performance of the experiment, the host simply enjoys the view from the VIP seat and exclamations—"this one's for the money"—are his only contribution.[8] His in-training vomiting

[5] Peter Rees, dir., "Ice Bullet, Exploding Toilet, Who Gets Wetter," *MythBusters* (Beyond Entertainment, September 23, 2003).

[6] Ibid. The claims asserting the hosts' experience, expertise, etc., recur in the production.

[7] Imid.; Tabitha Lentle, dir., "Alcohol Myths," *MythBusters* (Beyond Entertainment, October 22, 2008).

[8] Alice Dallow, dir., "Curving Bullets," *MythBusters* (Beyond Entertainment, June 10, 2009).

and fainting (generated by cerebral hypoxia), i.e. "the terrible" suffering he endured during the training, is thus in no way an essential part of the experiment. Rather than that, the science employed for this particular myth-busting seems to be targeted at satisfying Savage's need for attention by showcasing him going through a pleasure-cum-pain experience.[9]

Although the zany speculation, "boys-just-wanna-have-fun" fantasy and the dangerous need for attention, of course, echo Eco's respective takes on the cultural adaptations of the Middle Ages and illustrate the non-scientific uses of science in the programme, I would like to make one more point in their respect. As has been already suggested, there seems to be a common denominator to these—when juxtaposed, they all concern the psychosocial aspect of our functioning. If this is so, it might be inferred that these particular uses of science might be subsumed under the "satisfying one's desires" heading.

But satisfying their desires is just one side of Savage and Hyneman resorting to scientific effort. Some of the myths that the two put to a test are also related to socially more useful and hefty questions or, as Eco might say, to the expectations of the twenty-first-century society as to the effects that scientific activity is to bring about. One of the crucial matters troubling our society right now is the question of climate change and we expect scientists to aid us in averting its consequences. That is why they delve into developing, i.a., fuels that would not pollute the environment. Interestingly, the hosts of *MythBusters* also make this effort. In the episode "Rocketmen," they test gummy bears and poop as alternatives to rocket fuel. As flippant as employing science to verify the workability of such substances might seem, the hosts do conclude that "in reality, [poop] might just have a practical use in future space travel" and that they "have just shown that it might be a viable rocket fuel."[10] But one problem with their conclusion is that both substances are nowhere near as effective as the rocket fuel and Savage and Hyneman know this even before they conduct the test. This allows one to interpret their poor results and the entire experiment in terms—inspired by Eco's taxonomy—of science pursued because the fans of the programme asked for it and the hosts want to meet their expectations.

[9] And, by extension, also at satisfying the audience's potential expectations: some people enjoy watching other people suffer.

[10] Chris Williams, dir., "Rocketmen," *MythBusters* (Beyond Entertainment, February 20, 2016). This use of science falls also under one more category related to Eco's proposition, that is *philosophia perennis*. As we can see, science is employed in this episode to show that it is everywhere, even in poop.

As regards handling fans' attention, rather than contributing to the current state of our knowledge, the hosts' yet another use of science is worth mentioning: the myth-busters resort to various scientific traditions and—as it might already be deduced by further expanding on Eco's relevant comment—not necessarily or solely to generate new knowledge. In the episode "Hidden Nasties," the programme's team put Newton's third law of motion to the proof, i.e. they test whether a sports car can skip across a lake that is about thirty-meters long. Not really surprisingly, when accelerated to a speed high enough, the car reacts as expected.[11] Watching this, one may wonder why a staple of our scientific tradition is verified. One answer to this question might be related to the problem of experimental findings reproduction. Among the pillars of science, we can find the idea that the results of experiments are considered scientific if they can be reproduced. If someone claims a discovery and other researchers cannot reproduce it under the same conditions, the discovery is usually not accepted.[12] Thus, reproducing results of experiments is an integral component of generating consensus as regards a discovery. In this context as well as in the context of Eco's idea of the Middle Ages being occasionally a source of tradition, we may see Savage's and Hyneman's use of Newton's third law of motion as a gesture of drawing on the scientific tradition of reproducing results. That they openly admit to resorting to classical mechanics corroborates this interpretation.

What science is also moulded into in *MythBusters* is the tool with which to enhance the American sense of grandiosity. Setting aside the facts that both main hosts are Americans and that the programme was filmed in San Francisco for the most part—which already signalises promoting scientific efforts with the American label—it should not escape our attention that Savage and Hyneman put to a test several myths connected with their national heritage. For instance, they confirm that the NASA moon-landing photos and film are not fake; that, in a vacuum, a flag can indeed flap and clear footprint made; and that the Apollo astronauts left some equipment on the Moon. All these experiments are carried out, of course, in the name of science and compliance with scientific principles. But they—as

[11] Alice Dallow, dir., "Hidden Nasties," *MythBusters* (Beyond Entertainment, December 16, 2009).
[12] Naomi Oreskes, *Why Trust Science?* (Princeton, Woodstock: Princeton University Press, 2019), p. 206.

demonstrated in what follows—are also performed to reassert the American conquest-of-space grandiosity (dented by conspiracy theories).[13]

The episode in question opens with the narrator describing a set of moon-landing conspiracy theories as "the tallest tale of all." That the set is defined as such and that the myth-busters put it to a test is not really surprising. Some Americans' tendency to consider nearly everything of their provenance to be superior appears to translate in this case into the myth-busters looking for the greatest possible myth, finding it and craving to bust it. All the more that we learn that twenty per cent of Americans believe in the hoax and not in NASA's science. This puts the US society and the greatest achievements of American scientific thought—with which the myth-busters identify—in not the most favourable light. As we might guess, resultantly, the hosts feel chivvied into addressing the problem scientifically.[14]

The experiments that follow are such addressing but, since it is rather the narration in which they are embedded that points more explicitly to their connection with American grandiosity, let us delve into the narration in question. Its opening point is JFK's 1961 speech which asserts the American leadership in cosmic endeavours, while the closing one is the hosts' conclusion that, with the use of science, they restored the American "pride and confidence in scientific endeavour."[15] In this context, the experiments they conduct might be interpreted as the tool with which they wish to rectify the misguided belief of a part of the American society and reassert the "correct"/successful version of the American history of the conquest of space. Thus, scientific effort serves them as a means with which to bolster their national achievements.

When transposed into the context of science, Eco's idea that the Middle Ages were occasionally made decadent might goad one into wondering whether a scientific activity can also be decadent. As *MythBusters* shows, it can. Although some of the examples discussed in this text attest to science serving Savage as a means of self-indulgence, I would like to adduce a more clear-cut example of it being used in the programme in a morally dubious way. Drawing on the fraternities' custom to force those willing to join them to dip their hands in a hot or foetid liquid, Savage and Hyneman test the

[13] Tabitha Lentle, dir., "NASA Moon Landing," *MythBusters* (Beyond Entertainment, August 27, 2008).

[14] Ibid.

[15] Ibid.

Leidenfrost effect.[16] Of course, it is not common knowledge that, after an object is dipped in water and then in a much heater liquid, the emitted vapour creates a layer that temporarily protects the object from the high-temperature damage. However, demonstrating this effect on the example of molten lead, gasconading that it is damage-free, and, most importantly, embedding the experiment in the context of fraternity pranks, makes Savage and Hyneman use scientific activity as if to affirm such pranks, and hence, inspire more of these. Thus, if the hosts decide to employ science as a prank aid, their gesture, undoubtedly, bears the stamp of moral decline, i.e. decadence.

Eco's idea that medieval objects, settings, etc., are sometimes adapted to function in texts of culture completely out of their original context might seem untranslatable as regards scientific effort and its uses in *MythBusters*. Surprisingly, the programme offers many illustrative examples disconfirming the above surmise. In the episode entitled "Curving Bullets," the hosts test myths connected with the effects that can be potentially generated by bullets and supersonic jets. One of these effects comes from the film *Wanted* with its most captivating CGI, i.e. bullets taking a curved trajectory when shot by swinging the gun.[17] On the face of it, this is yet another instance of a myth that is verified by a group of experts with the use of experimental methods; however, this also much more. Let us consider the following: science is about facts. Scientific experiments start and end with facts[18] and even hypotheses are put forward to be finally embraced as facts or rejected as falsities. Idealistically speaking, facts constitute the natural environment of science. Less idealistically speaking, this is not always the case and the myth-busters' interest in *Wanted* proves that. *Wanted* is fiction and so are the bullets taking a curved trajectory. If they constitute the research material of the programme, it means that science does not start in this case with facts but with fiction. Resultantly, fiction becomes science's original context and—by analogy to Eco's Middle Ages functioning off-base—adapts science to function within it. If this is so, it would not be amiss to infer that scientific activity is employed in this case as a tool of fiction.

[16] Alice Dallow, dir., "Mini Myth Mayhem," *MythBusters* (Beyond Entertainment, December 28, 2009).

[17] Dallow, dir., "Curving Bullets."

[18] Or at least what experimenters consider as such—the current state of knowledge on the basis of which hypotheses are developed includes both facts and what we consider pro tem as such.

One more use of science that might be derived directly from Eco's theory and noticed in the programme is that of a pretext to entertain the audience. Although the entertaining quality of the broadcast has already been emphasised, I would like to return to the hosts testing Newton's third law of motion in the "Hidden Nasties" episode to highlight this quality more clearly. When verifying whether a car can skip across a lake, Savage and Hyneman admittedly draw on the scientific tradition of replicating results. But one major problem with their verification is that they put to a test a discovery that has been accepted for over three centuries. Thus, one may ask why prove what has been proven? If obtaining new knowledge is not the main purpose of this experiment, one may opt for its second most blatant effect, which is a spectacular car jump. And, since a car effectively bouncing on water is not a novel strategy in television and one known to be targeted at hyping viewers' attention,[19] it is justifiable to claim that the experiment performed by the myth-busters has, in this case, more to do with entertaining their audience than with imparting it with new knowledge.

When juxtaposed, the uses of science in *MythBusters* might perhaps surprise with their breadth. But, as one might surmise, many more of these might be noticed. Without expanding on them, let me mention that scientific activity is treated in the programme also as an object of competition, form of intellectual encouragement, passion, useless pastime, and in many other ways.[20] Thus, on the basis of the above, it seems justifiable to infer that *Mythbusters* is a broadcast which—regardless of the implications that its generic characteristic carries— does not concentrate solely on popularising science but employs it for a variety of purposes. And, since this programme is one amidst many others that also lend themselves to showing how multifariously scientific activity is employed in the popular culture of the twenty-first century,[21] it might not be amiss to conclude as well that it exemplifies a trend; a trend of popcultural products with the inbuilt assumption of *uses*—rather than use—of science.

---

[19] Jim Drake, dir., *Speed Zone* (Orion Pictures, 1989).

[20] Andrew Farrell, dir., "MythBusters Special 3: Ultimate MythBuster," *MythBusters* (Beyond Entertainment, February 9, 2005); Steve Christiansen, Lauren Gray Williams, dirs., "Do Try This at Home?," *MythBusters* (Beyond Entertainment, February 1, 2014); Steve Christiansen, Lauren Gray Williams, dirs., "Mythssion Impossible," *MythBusters* (Beyond Entertainment, February 15, 2014).

[21] For instance, *Bill Nye Saves the World, James May's Man Lab, Outrageous Acts of Science*.

## Science versus Entertainment[22]

One crucial difference between two perhaps most science-oriented types of popcultural activities—i.e. creating science fiction and popularising science—is that the first revolves around unfolding an invented story, while the latter is concerned with presenting facts. In the case of the first, fiction texts, films, TV series, etc., the story is of the essence, while science is its more or less prominent admixture. Such works cannot function without it because science is incapable of a stand-alone existence that could be anyhow categorised as fiction.[23] A reverse analogy could be employed to characterise popular-science works. As the very label indicates, such texts, films, TV series, etc. have acquainting their audiences with scientific effort as their prime task.[24] Much as, in effect, science is indispensable in these, it is of note that the fictional component may but does not have to be present. As has been shown, *MythBusters* resorts to fiction discretionarily and is perfectly capable of popularising science with no recourse to the imaginary. Nevertheless, should the potential admixture of fiction be the only element that brings contemporary popular science near science-fiction, perhaps, the above remarks might not be of much cognitive value. Since this is not the case—the myth-busters' uses of scientific effort for a variety of purposes translate into the hosts adding miscellaneous non-scientific admixtures to their popular-science programme[25]—one may wonder how such interposals affect the educational value of this and other broadcasts of the ilk.

Although we might intuitively want to conclude that such influences are most likely negative, in what follows, I would like to develop a line of

[22] Although the reasons for the contemporary popcultural products nominally targeted at popularising science to employ it in multifarious ways might be interesting as such, I do not delve into these, above all, because the object of interest in this section are the consequences of the described state of affairs. Additionally, I hope that the hosts' need to entertain their audience can be read between the lines of the preceding section.

[23] Even the so-called „intellectual" science fiction which uses stories as illustrations of particular thought experiments cannot function without a story. See: Peter Nicholls, Introduction to: David Langford and Brian Stableford, *The Science in Science Fiction*, ed. Peter Nicholls (New York: Knopf, 1983), p. 8. However, it should also be noted that science fiction can function with the vestigial scientific component or even with science's ersatz, i.e. science that is invented by the writer and has nothing or almost nothing to do with how we understand it

[24] Oliver Belas, "Popular Science, Pragmatism, and Conceptual Clarity," *European Journal of Pragmatism and American Philosophy*, Vol. 4, No. 1 (2014), accessed October 20, 2020, https://journals.openedition.org/ejpap/514.

[25] This observation might push one to entertain the following thought: if the non-scientific components of *MythBusters* are substantial, how is the programme different from science-fiction content-wise?

arguments in favour of a dynamics that non-scientific interposals generate as regards the works in question. On the one hand, regardless of how detruded the science employed in these is, even its anoetic perception might provide us with some data—which in itself is educational, as a part of our schooling consists in our accumulation of information (also not paying much attention to it). Furthermore, disjointed as the data we obtain from popular-science works might be,[26] the stochastic way in which we acquire them does not differ much from the way we acquire certain information during our formal—via the teacher presenting us with some trivia about a subject—and informal—self-study not infrequently brings us to unrelated subjects—education. Additionally, if popular-science works, even unintentionally, push us into exerting our intellectual skills, their educational value consists in goading us into thought experiments. Doubtlessly, the greatest advantage of popular-science works is that their flashiness attracts and encourages future experts to pursue careers within the field; and perhaps—in a very circumlocutory way—inspires them to solve hefty social problems. As we can see, the interposals generated by non-scientific uses of science have the potential to enhance the educational value of popular-science broadcasts. Whether this potential is exploited by scientific activity promoters and, what is most important, whether it translates into something indeed educational is, however, open to speculation.

It is open to speculation because accumulating and retaining data, performing thought experiments, and translating inspiration into actual scientific pursuits that result in one having a decent knowledge of some discipline, require effort. And, paradoxically, this effort is heavily misrepresented by some popular-science works. Let me illustrate how this is so with two examples. For time and cost reasons, the research part of the experiments is shown in *MythBusters* very perfunctorily. The same limitations apply to the hosts' time-consuming (re)creations of the original conditions of a particular myth as all is forfeited in favour of them carrying impressive tests.[27] This means that, although the programme might seem to encourage its viewers to pursue scientific activity, it encourages them to pursue its "fake" version. Usually, research takes time and so do preparations

[26] There is definitely no particular ology that is consistently explored by the myth-busters.

[27] Adam Savage, "Ask Adam Savage: 'Was MythBusters Intended to Be Educational?,'" *YouTube*, November 15, 2020, accessed November 20, 2020, https://www.youtube.com/watch?v=U0QqMQ2Makg.

and performances of experiments, and only some of them generate visually spectacular effects. Thus, *MythBusters* and other alike broadcasts do not encourage pursuing science *sensu largo* but promote embracing spectacular science which demands relatively little time, effort, and linguistic juggling acts,[28] and which, by and large, does not exist.

Second, one consequence of employing science as a pretext, a springboard to fantasise or speculate, a tool with which to reassert one's ideas, or a toy and decoration is that such gestures defeat the actual purpose of scientific effort. Not targeted at generating new knowledge but rather at replicating it, many of the myth-busters' experiments contribute nothing to the current knowledge. Additionally and, more importantly, selecting whatever else than scientific effort as the desired value demotes it to the role of a step with which to obtain something else. Consequently, this effort appears to be as something necessary or/and worth making only when it enables its makers to gain some other value—in the case of *MythBusters*, it is a mere cog in the machine of Savage's and Hyneman's fancies.

Juxtaposing the above remarks, one might notice how *MythBusters* concurrently goads its viewers into various—sometimes opposite—directions as regards science. For instance, the programme concurrently allows its audience to verify some urban legends and to fantasise alongside its hosts. Undoubtedly—let me reemphasise this—it offers the viewers possibilities to gain new knowledge. But, at the same time, it repurposes scientific effort in so many ways and so many cases, that its actual purpose is lost amidst all this.[29] If we pay attention to what the uses of this effort are and how they are shown on *MythBusters*, it is hard to escape the impression—and Savage confirms this—that the key to the hosts' choices of investigated myths is their attractiveness to the audience.[30] Science *proper* is only one of the many "uses" of science the programme resorts to and, additionally, one that does not come to the fore very often. What comes to the fore in its lieu are fantasies, self-indulgence, etc.—in other words—entertainment.

[28] Neither scientific tests nor the language describing their details can be so simplistic as the hosts would like us to believe.

[29] Christopher Bonanos, "MythBusters and the Rise of Fact-Checking Everything," *Vulture*, March 7, 2016, accessed October 20, 2020, https://www.vulture.com/2015/10/why-mythbusters-mattered.html. Although the title of this article is slightly misleading, it does point out that *MythBusters* encourages verifying facts. At the same time, it includes the remark that Savage's and Hyneman's "degree of experimental precision would perhaps not clear the bar in a Ph.D. thesis defense at MIT."

[30] Savage, "Ask Adam Savage."

## Conclusions

As a scholar, I am in no position to claim what popular-science broadcasts of the *MythBusters* type should or should not be like. I am also perfectly aware that taking away the entertainment aspect of such broadcasts would work only to the disadvantage of the process of acquainting the masses with scientific activity. However, I would like to point to two implications of feeding our society with this type of content.

First, the promotion of broadcasts in which science is forfeited in favour of entertainment entails for discipline the need to compete with the entertainment sector for humanity's attention.[31] This, in turn, has already resulted in some scientists abandoning their research in order to become celebrities or menders of "awry science." Additionally, scientists are spurred by their employers to sacrifice some of their working hours not to scientific effort but to its promotion as well as running projects which would be socially attractive rather than reasonable. This, as we can guess, helps scientists to remedy the image of the discipline worldwide. At the same time, if they allot their time to PR activities, this impinges negatively on the development of science in general.[32]

Second, if the misrepresented image of scientific activity or, as Savage tells us, "screwing around" is propagated, its recipients are, by and large, induced to screw around and not to pursue science. This—among many

[31] "The Search" episode averaged 454,000 viewers. "Science Channel Series Premiere of 'MythBusters: The Search' Breaks into Cable's Top 20 Among Key Demos on Jan. 7," *The Futon Critic*, January 13, 2017, accessed September 01, 2020, http://www.thefutoncritic.com/ratings/2017/01/13/science-channel-series-premiere-of-mythbusters-the-search-breaks-into-cables-top-20-among-key-demos-on-jan-7873214/20170113science01/. I am unfamiliar with a scientific project whose details would attract similar attention.

[32] The observation closing this paragraph might support the argument that science communicators might thus be the ones to handle such PR activities. It is, however, worth considering who such communicators might be—rather than non-scientists of the Savage and Hyneman type, I would suggest trained scientists—compare this idea with the closing thoughts of the next paragraph. Neil deGrasse Tyson's last research publication is from 2008. Neil deGrasse Tyson, "Curriculum Vitae," *Hayden Planetarium*, accessed September 01, 2020, https://www.haydenplanetarium.org/tyson/about/cv.php#papers. Joe Hanson runs a *YouTube* channel devoted, i.a., to debunking scientific inaccuracies. Joe Hanson, "It's Okay to Be Smart," *YouTube*, accessed October 20, 2020, https://www.youtube.com/user/itsokaytobesmart. Institutionalised promotion of science is already a staple of academic functioning. Paul Guinnessy, "Academies Seek to Promote Scientific Excellence in Developing Countries," *Physics Today*, Vol. 56, No. 10, (2003), p. 32, October 1, 2003, accessed October 20, 2020, https://physicstoday.scitation.org/doi/10.1063/1.1628995. The current pandemic has generated many dubious ideas how to fight the virus. Éanna Kelly, "COVID-19 Pandemic Leads to Flood of 'Useless' Science," *Science|Business*, June 25, 2017, accessed September 01, 2020, https://sciencebusiness.net/covid-19/news/covid-19-pandemic-leads-flood-useless-science.

other factors—generates the situation in which our society gains more and more of the self-proclaimed experts—those who are, on the one hand, equipped with stochastic and fragmentary knowledge and often convinced of their "I watched this on the Discovery Chanel" intellectual superiority and, on the other hand, not willing to spend hours and hours on laborious delving into the details of the science with which they boast. The growing cohorts of COVID-19-vaccine protesters could be one example.[33]

Does all that mean that we are doomed to change from the society for which car manufacturers used to include in their manuals information how to fix an engine to the one that needs to be warned against drinking car battery electrolyte?[34] Let us hope that this will not be the case. In this text, I describe a standard, one of many as regards contemporary attitudes to science. There are also much more heart-warming standards—like online channels and websites devoted to exploring particular branches of knowledge in a professional and appealing way or MOOCs[35]—that counterbalance the mentioned one. And there is always a chance that they will supersede it.

[33] Philip Ball, "Anti-Vaccine Movement Could Undermine Efforts to End Coronavirus Pandemic, Researchers Warn," *Nature*, May 13, 2020, accessed September 01, 2020, https://www.nature.com/articles/d41586-020-01423-4.

[34] Noah Podolefsky, "The Elmoto Dictionary," *Elmoto*, February 01, 2014, accessed September 01, 2020, http://elmoto.net/.

[35] See: Nick Bergan's channel on *Youtube* https://www.youtube.com/channel/UCJzP0P0UO7hsXSSNUu4zn-Lw/featured as well as https://www.investopedia.com/, and https://www.mooc.org/.

Alicja Bemben

## Popular Science, or Why not "the Only Difference Between Screwing Around and Science Is Writing It Down."

This article focuses on the popular-science programme *MythBusters* to illustrate the various ways in which it employs science. On the basis of my analysis of these, I, first, argue that the popculture of the early twenty-first century generates products in which multiple uses of scientific activity are a standard. Second, it is also substantiated that this multiplication of the uses of science translates into it being forfeited in favour of entertainment even in broadcasts that are, or at least seem, targeted at it.

**Keywords:** popculture, science, *MythBusters*, Umberto Eco, the Middle Ages, popularising science
**Słowa klucze:** popkultura, nauka, *Pogromcy Mitów*, Umberto Eco, średniowiecze, popularyzowanie nauki