

The role of hybridity in the constitution of a new genre, antiscience. A Romanian perspective

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The antiscientific discourse is a social and linguistic construct ensuing from a permanent restructuring of preexisting discourses. The goal of this study is to test whether antiscience qualifies as a genre, which might be a guarantee of its hybrid nature. Secondly, this paper aims at identifying some of the most common hybridisation strategies that are used to expand and impose the antiscience genre. The findings confirm the existence of an antiscientific genre in Romania strategically equipped to contradict science and to deny the benefits of scientific discoveries. The analysis reveals that the antiscientific genre has got a parasite lexical behaviour given that its discourse thrives using science's technical vocabulary for contrary purposes, depriving science of one of its major tools, which has become a common lexical pool making it even more difficult to discriminate between arguments. Overall, the article emphasises the predatory character of the antiscientific genre which thrives on the scientific vocabulary and on mimicking the scientific method (Nature 2009, 237).

Keywords: *antiscience, hybridity, genre, referencing, endorsement*

1. Delineating a new genre, antiscience

Interdiscursivity has been largely defined as a blending of some genres' features, which might lead in some cases to the constitution of a new genre, despite being tributary to the source genres. Genre generation might signal significant changes in society, in people's manner of dealing with certain aspects, in people's adjustment to new social roles and positions because genres follow an already installed course in society. The duality society–language tailors' genres by imprinting social changes into new linguistic patterns that enhance genre definition and stabilization so

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necessary for a genre's acknowledgement and observation when used. If this is true of genres, is it that antiscientific stands and opinions constitute a genre?

To start with, the existence of antiscientific opinions has been quite pervasive in many circumstances concerning medical issues, technological progress, and political matters. In general, antiscientific opinions find fault with the pretended subversive effects of vaccination, 5G, and of certain political entities whose presupposed uppermost goal is sickening and even annihilating the human species. Without exception, any event from the categories mentioned above has triggered reactions claiming a hidden agenda directed at non-powerful people by those in charge with the eradication of the human species, the powerful. It is undoubtedly a modern continuation of the class conflict (the rich/ the powerful vs. the poor/ the weak) transposed in the context of the 21st century when conflicts are recontextualized to the realities of the present.

Given their pervasiveness and argumentative repetitiveness, it could be claimed that antiscientific stands qualify for a genre. To begin with, a genre is a 'class or type of written texts' (Mäntynen and Shore 2014, 739) that have a common purpose. According to Muntigl and Gruber (2005, 4) genres are abstract clusters of interconnected ideas, texts, and discourse featured to match a purpose-oriented wording observing a series of text composition rules. Genre structure is 'stabilised, yet flexible' (Muntigl and Gruber 2005, 10), reinforced and reshaped by every new addition (Bazerman 1988, 8), being characterised by 'semantic closure' (Pattee 1995, 149) which describes the text's self-reference and its self-sufficiency. Genres are tightly connected to certain contexts and activate when the context is appropriate, in this way facilitating acknowledgement from those familiarized with genre's features. Moreover, genres are characterised by some sort of typicality – common lexical and grammatical features – whose analysis reveals the elements characteristic to a genre. For example, Sarangi (2005) features the typicalities of professional communication which confer strong reasons for considering professional communication a genre. In a similar vein, the antiscientific discourse contains its lexical and grammatical typicalities that might facilitate an easier identification of antiscientific messages, though the method might still have some limitations.

When applying these criteria to what is largely known as 'antiscientific discourse', it seems to verify the previously mentioned criteria. Firstly, antiscientific opinions are issued to convince people against authority-promoted acts or opinions ranging from vaccination to unidentified flying objects, proving in this way its goal-oriented nature. Secondly, their stability is maintained against all evidence that proves the opposite of what antiscientific opinions claim with some antiscientific

opinions being fifty years old and still powerful in convincing individuals of their truthfulness. Its flexibility is visible in the easiness with which it incorporates any new antiscientific opinions irrespective of the field. Thirdly, any antiscientific opinion is immediately recognized by those who have been exposed to it before and have internalized its main topics, and discourse features. Furthermore, Olsen (2018, 42) uncovers a definitory trait of genres, that of 'guiding interpretation', (similar to Pattee's semantic closure) of limiting the range of possible interpretations, which Olsen (2018, 42) defines as 'a constraint on semiosis', which is a valuable explanation for the fact that once a person believes an antiscientific opinion, s/he will always have a propensity for conspiracy theories since any other interpretation is reduced to a non-possibility. An additional proof of genre's ability of imposing on people's understanding is brought by Frow (2015, 1) who claims that genre contributes decisively to how meaning is structured in the society, emphasising that non-appurtenance to a group (Cichocka et al. 2016, 556) leads automatically to a failure in understanding the meaning of a message. Thus, not having an antiscientific cognitive setup, will lead automatically to an immediate rejection of that reading of a message (McIntyre 2021, 15). Just as having one will mean an instantaneous comprehension and acceptance.

In *Conspiracy as Genre*, Tebaldi, Plum and Purschke (2025) foreground three elements that convert antiscientific stands into a genre: common *narratives*, *power* which transgresses from current gender-related conspiracies, and *circulation* which brings forth one of the major characteristics of conspiracy as a genre, hybridity.

Confirmation of one's interpretation of events is a determining factor in the coagulation of significant masses convinced of the truthfulness of their tenets. It is the confirmation across countries and topics that strengthens appurtenance to a community that generates and spreads common narratives. Fear of vaccination is transnational and transgenerational since there is no light-hearted acceptance of inoculation of dead fetuses or hardly tested substances that presumably might alter human DNA or cause deadly diseases. Thus, narratives are validated and held true, which places confirmation high among the criteria that dictate the acceptance of antiscientific narratives. For a narrative to be convincing, it needs to spread simultaneously from multiple sources for a better reach. The more the voices that spread the narrative, the stronger the confirmation. This is the explanation for the sudden viralisation of antiscientist messages which, by aggressive posting, targets individuals that might have shown interest in similar postings.

Of whatever nature, narratives are not produced for personal use mainly. They are meant to circulate and become sources of further knowledge. In the case of antiscientific narratives, circulation ensures a wide and immediate coverage of

trending antiscientific ideas that adhere to preexisting antiscientific ideas for an ultimate melting into a new antiscientific narrative. Circulation adds to antiscientific narratives a further local or national, economic or political constituent depending on the area where it is circulated. Circulation unlocks local fears which are integrated into general ones adding further elements that interlock previous dreads all culminating into a class conflict.

2. The new genre's hybridizing strategies

The analysis of Romanian antiscientific propagators² has revealed a number of strategies that are favoured when spreading disinformation. The most frequent is lexical hybridization which consists of *the use of the same vocabulary* when both propagating science and antiscience, which might be confusing given that the burden lies with the audience to discriminate between the two versions. The second approach refers to how authority is sought as a guarantee of one's statements and that is done by the help of *referencing*. In the end, a strategy taken from advertising is largely and apparently successfully used which operates with *celebrity endorsement* of antiscientist ideas, which has become a trend both in Europe and the United States of America.

2.1. Lexical hybridity

If the above arguments manage to prove that antiscientific discourse is a genre, then it goes without saying that hybridity is one of its features, since hybridity stands for that feature of genres of relying on a variety of other genres in order to constitute their own corpus. Hybridity is an intrinsic characteristic of genres and antiscientific discourse cannot be an exception. Antiscientific theories rely heavily on science in proving right their allegations. For example, when claiming that vaccines modify human DNA, the claimant uses genuine medical terms in order to prove their point because knowledge of the field is a guarantee for viewers, possible believers, that what they claim is also true. Scientific terms are the primary elements that help hybridisation, which leads to the paradox of antiscience's using the same words in an attempt at demonstrating divergent hypotheses. It is highly likely that the reasons for the existence of so many people who believe antiscientific theories is exactly this

² The Romanian propagators' messages that constitute the corpus of analysis for this article were issued by Olivia Steer, Diana Șoșoacă, and Gheorghe Piperea.

overlapping corpus of medical vocabulary that makes it so hard to distinguish between informative medical discourse and conspiracist medical discourse (Grimes 2016, 3). Antiscientific theories (Holton 1994, 265) have a predatory behaviour in relation to science since, by using the same technical lexicon, they in fact spread incompatible ideas with what medicine postulates.

When giving interviews, specialists intersperse jargon and common words in communicating symptoms, treatments, technical solutions, etc. Consequently, it is absolutely normal that a doctor should use such words as: *experimental studies*, *particles*, *viral transmission load*, *infectious dose*, *the transmitter*, *the exposed*, *recrudescence*, *transmissible* as it is the case in the interview given by doctor Mihai Craiu from which an excerpt is given in example (1) below. Though a specialist, doctor Craiu reduces the jargon in an attempt at popularizing science and making it easily accessible and understood by viewers. The jargon that he uses is less frequently used, but not infrequent, in the antiscientific propagators' messages (see (2) and (3) below).

- (1) The mask is very important. We know from the **experimental studies** for the flu that the **particles**, depending on the type of event, either spoken, sung or sneezed, can be transmitted at a distance of more than two meters. (...) There is now evidence that the use of masks can decrease the **viral transmission load**, that is, the **infectious dose**. (...) If we add a mask to either **the transmitter** or **the exposed**, a decrease viral load is noticed and if the other wears a mask as well, this viral load decreases even more. (...) If no one wears a mask, the risk of transmission depends on the exposure, (...) If all people wear the mask correctly inside all the time they are inside, there is a minority of people who could be infected, but they are so few, that it is absolutely rational to have those mandatory mask wearing recommendations. The mask is absolutely essential (...). It was observed that the total lifting of any phenomena of distancing and wearing the mask inside led to **recrudescence** under the conditions of the appearance of the Delta mutation, which is much more **transmissible**. The mask inside is extremely important³. (Mihai Craiu – Romanian pediatrician at Al. Rusescu Institute)

³ <https://www.agerpres.ro/sanatate/2021/09/06/dr-mihai-craiu-purtarea-mastii-de-protectie-in-interior-este-extrem-de-importanta--774600>

- (2) Currently, we are the only country in the European Union that has agreed to vaccinate its children and adolescents against COVID-19 with vaccines that are in the **experimental stage** until December 2023. (Diana Şoşoacă, Romanian senator)⁴
- (3) On the other hand, it shows that there are some serious situations, ranging from **myocarditis** - a condition that you develop and have your whole life - to **paralysis** and **blood clots**, situations that are increasingly common and that have far exceeded not only the number of adverse reactions to a single **vaccine**, but the totality of **adverse reactions** to all vaccines, which have been inoculated into entire populations (globally - s.n.), from 1960 to the present⁵. (Gheorghe Piperea, 26 January 2022)

Though the fragments above (2), (3) do not contain exactly the same terms, it is nevertheless obvious that the antiscientific discourse is greatly hybridised by scientific terms to such an extent that the speakers demonstrate linguistic skills similar to those of real doctors, which is likely to increase their credibility in the eye of an audience that valorises more the explanations of either a senator lawyer or a university professor lawyer rather than the explanations of medical doctors. The infusion of a non-specialist's discourse on a medical issue is solid evidence of the intentional hybridisation process between the scientific and the antiscientific genres with the purpose of validating the antiscientific message which thus becomes more credible and attracts more and more followers.

A comparable situation is to be identified in the case of chemtrails which supposedly are intentionally released over inhabited locations with the purpose of poisoning the residents. The conspiracist texts are infused with scientific vocabulary (e.g. *kerosene, fumes, steam, condensation, states of water, condensed steam, dew point, gravity, heavy metal or chemical spraying*) countering scientific arguments with their own vocabulary and even attempting at drawing up an would-be scientific demonstration mimicking truthful scientific demonstrations and invoking the use of scientific logic in the process⁶. In a Facebook posting, the antiscientific influencer, Olivia Steer, infuses her text with technical vocabulary (purposefully bolded in the text) in order to demonstrate her knowledgeability which gives her the right to contest the official scientific explanation for the phenomenon and also to gain approval from her followers.

⁴ <https://www.factual.ro/declaratii/diana-iovanovici-sosoaca-despre-vaccinarea-copiiilor/>

⁵ <https://oliviasteer.ro/gheorghe-piperea/>

⁶ For more details see Vâlcea (2025)

If I didn't know, “**condensed steam**” means water particles that freeze at very low temperatures, specific to the high altitudes at which aircraft fly. Which, I confess, disturbed me: suddenly, we are talking about **steam**, **condensation**, and **floating ice** when we refer to the **trail**, regardless of the altitude differences of the aircraft in flight and, therefore, the air temperature. These formations, which are at the same time **gaseous**, **liquid**, and **solid**, as emerged from the scientific definition given to “condensed steam”, remain practically frozen and, above all, suspended, in the form of white traces, which we see from the ground. Which surprised me beyond measure, because I knew that, only in its **gaseous form**, water in nature can float (in the form of clouds, at altitudes between 2000 and 12,000 meters, which a **cumulonimbus** often reaches), and when it reaches a **liquid or solid state**, passing beyond what is called the “**dew point**”, it falls to the ground, submitting to the eternal **gravitational force**, as rain, snow or a mixture of the two, called **sleet**. Unless the laws of physics have somehow changed in the meantime...⁷.

In the scientific demonstration (underlined in the above text), though following a logical path of thinking, there is minimal evidence in support of a scientific issue, given that what is included in the demonstration is a mere secondary school physics lesson (Sidkey 2018, March 1). The complexity of phenomena when more elements come into picture was largely ignored by the influencer, when, in fact, the temperature and humidity at high altitudes is the most important factor that leads to the formation of white trails at the back of planes. This is the reason for which there are days when the trails are very thick and persistent and others when the trails disperse instantly. The scientific explanation, though minimal, is more convincing than a simple allegation without evidence. It is also likely that people listening to it or reading it could remember this explanation from school, which makes it the more credible.

The hybridisation of the antiscientific genre with the communication tools of science is extremely serious as it puts at risk science’s credibility. Two different explanations about the same topic with the same vocabulary will attract people of a specific intellectual and social profile. Automatically, the acceptance of an explanation means the rejection of the other one, which explains the polarisation of the two sides. Science-wise people will reject simplistic explanations and conspiracies whereas the others will accept the explanations that they are capable to understand or those that sound familiar.

⁷ <https://oliviasteer.ro/>

2.2. Hybridization by means of referencing

Another hybridizing strategy that is highly likely to be convincing and attract followers is referencing which is an element commonly used in academic writing where referencing stands for ethic academic behaviour when ideas and/ or words are attributed to authors, thus acknowledging the authors' fundamental contribution to the deepening of science. The antiscientific genre is hybridised by this strategy because it needs to receive accreditation from growing masses of adepts who can be allured into believing its allegations. Referencing is about signalling the presence of allies, of authorities entitled to emit ideas and interpretations, it is about claiming academic knowledge that confirms their theories, it is about recognition and status, about getting over the inferior position of unscientific blabber, about a repositioning as a credible idea generator and spreader. For example, EUDRA (European Medicines Agency) is professed to have accepted the existence of a direct connection between miscarriages and infertility and mRNA Covid19 vaccines⁸. In reality, this is a piece of fake news and the agency's name is falsely maintained to have admitted this relationship, when, in fact, the agency's analyses and claims go in exactly the opposite direction, assuring that, after thorough investigation, no link has been established between mRNA vaccines and infertility or miscarriage. The abuse of putting words into an institution's mouth for the sake of increasing audience's confidence in one's saying is only a proof of the length conspiracist propagators are willing to go at in order to give more credibility to this unscientific trend.

- (4) However, the omnipotent Romanian Government, in the name of the same too often blind science, is playing God, starting, as of yesterday, a vaccination campaign for children between the ages of 5 and 12 (with ZERO risk of death, due to the new flu, regardless of the strain!), with experimental gene therapy serums, a therapy that has already led to miscarriages and induced infertility in almost 3,000 recognized cases (and how many more are unreported - God knows!), only in the first 10 months of the campaign and only in Europe, **according to data provided by EUDRA Vigilance**. (my translation)⁹

⁸ <https://oliviasteer.ro/>

⁹ <https://oliviasteer.ro/>

In another post on the negative effects of sunscreen creams on human health¹⁰, scientific journals (*Journal of the American Academy of Dermatology* and *The Journal of the American Osteopathic Association*) are falsely asserted to have brought evidence in support of the idea that sunscreen creams are actually triggers of skin cancer, which is a fabrication given that both journals are far from claiming that. The need for validation is so stringent that a characteristic feature of academic writing is subversively used in order to attract acceptance. Claiming the truthfulness of one's personal saying is no longer enough because one might be accused of not being a specialist, of not having studies in that field of activity, etc, so referencing is claiming something and guaranteeing with specialists that might certify what is claimed so that the conspiracist claim is finally validated.

2.3. Endorsement as a strategy of hybridization

An additional strategy of hybridisation is *VIP endorsement* which is a technique used preponderantly in advertising. The support given by famous sports people, actors or musicians to branded products helps enhance sales and brand power, which has also been adopted by conspiracists in gaining an as large support as possible. In a newspaper circulated in Romania, endorsement has been used as a great tool for spreading disinformative messages related to vaccination¹¹. The endorsers are foreigners who are either identified as '*the researchers from ...*' avoiding attributing precise identity or they are indicated by their names (*virologist Sucharit Bhakdi, professor Charles Morgan, pneumologist Wolfgang Wodarg, lawyer Thomas Renz, doctor Vernon Coleman, doctor Robert Malone, doctor Roberto Petrella*). A simple search reveals the truth behind the supposed expertise of the aforementioned personalities who are largely known for their stated conspiracist background recurrently signalling threats posed by powerful authority and legal organisations. Some of them were denied the right of practising medicine or others have totally contradictory opinions to largely accepted scientific opinions. Nevertheless, they are still considered a gain as endorsers because their academic titles stand as guarantees that their opinions are true.

National endorsement is a valuable tool when local celebrities, regularly, conspiracist doctors, reinforce conspiracist perspectives on events in order to convince an ever increasing number of people of the truthfulness of their claims. In Romania, conspiracist endorsement is assured by Răzvan Constantinescu, Flavia

¹⁰ <https://oliviasteer.ro/>

¹¹ <https://media.stiripesurse.ro/other/202109/media-163047305031745000.pdf>

Groșan, Monica Pop, Adina Alberts who flood the Romanian media with conspiracist messages. What makes this group of endorsers special is the fact that they are all medical doctors of different specialisations, an gastroenterologist, an optician, an easthetician, and a respiratory doctor. Their medical studies are considered to give them enough credibility about what they claim despite the fact that their specialty may at times be quite different than the one that is actually concerned. Their constant presence in TV shows is interpreted as a guarantee of their rightfulness, since no doctor would ever deny the benefits of his/ her own work, consequently, they are right. Thus, endorsement proves to be an effective method of keeping people captive in an antiscientific discourse.

3. Conclusions

This article has had two main objectives, namely, to demonstrate that antiscience has become a genre equipped with the mechanisms that make it identifiable and recognisable among other genres. Similar to other genres, antiscience has appeared as a consequence of a hybridisation process, copying means of expression from other fields in order to accomplish its purpose. Given that antiscience militates against the scientific method, from which it makes an honour to oppose to, the newly formed genre adopts from what it denies the lexicon, which seems to be a successful strategy as it gains acceptance from adepts. Using a similar discourse, but to an opposing purpose seems to have smoothened its pathway into acceptance since it demonstrates it can counteract scientific arguments.

Another strategy is taken from the academic field, referencing, which is used to increase credibility, acceptance and strengthen the general acceptance at the level of the society. The frequent use of acronyms standing for organisations or institutions has become common practice as antiscience propagators claim to be echo-chambers of some discoveries made by those institutions, which means that they must be true. Bringing authorities in support of one's antiscientific stands is twofold harmful: firstly, it misleads large groups of the population into believing fake information and secondly, it blemishes the honorability of research institutes.

The third approach is very modern and marketing oriented as it uses endorsement as a means of convincing people of the truthfulness of their claims. Thus, foreign endorsers are used because external validation is important to demonstrate the size of the phenomenon and to convince people about the validity of their theories. National endorses are also necessary because antiscientific ideas

need a boost and by listening to what Romanian endorses claim, a complete view is offered. The strategy seems to be bearing fruit since many people are trapped in an antiscientific rhetoric, blaming science and scientists for their problems.

The constitution of this genre is a real danger for the future of humanity as it denies hundreds of years of scientific progress and judging by the strategies it uses in order to convince, it is not so easy to counteract its actions and effects. Science is weak, politically unsupported and financially unsubsidized, unpopularized, it is silent and closed behind doors, whereas antiscience roams free prepared to influence people's minds.

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