

To Vereniging Onderwijs Research (VOR) and directors of institutes for *training of teachers* (Teacher Education) at different universities in The Netherlands

and

to Jan van Driel (till August 1 2016 chair of ICL, see **Appendix A**), editors of Euclides, George van Hal (science reporter on pi – tau but not yet archi, xur and yur), Sanne Deurloo (science reporting at Kennislink.nl / Nemo.nl) , Nemo.nl

cc Executive board NVvW and chair KWG, NRO, BON, authors w.r.t. pi – tau – archi

Concerning: Mathematics education (ME) research (MER) versus general education research and training of teachers, in relation to my letter to you of May 9 2016

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

and in relation to my second letter to NRO / PROO

<http://thomascool.eu/Papers/Math/2016-07-12-Second-Letter-to-NRO.pdf>

July 15 2016

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Dear professor Volman (chair VOR) and others,

Professor **Jan van Driel** (till August 1 2016 chair *Interuniversitaire Commissie van Lerarenopleidingen* (ICL), see **Appendix A**, until June 30 head professor and director of ICLON, and former secretary of the board of VOR), and **Tom Goris** (Euclides) and science journalists **George van Hal** (NewScientist.nl) and **Sanne Deurloo** (Kennislink at nemo.nl) en **Nemo.nl** and professor **Perry den Brok**, member ICL, requested to be taken from "email-list(s)".

I will answer to these individual requests below, and show that there is involvement that cannot be rejected so easily. I have addressed functions and not private persons with personal hobbies. People with responsibility might opt for the rule "Wat niet weet wat niet deert" but they have been informed and better reply on content.

In my modest opinion I employ email very wisely and very limited, also in this issue on the **paradigm shift** in mathematics education, its research and policy making.

This **issue at hand** is that the community of mathematics education (ME) (and its research (MER) and policy making (ME(R)P)) has given evidence of being closed-minded in 2008-

2015, and that I am looking at the education researchers around this community, to see whether they can understand the paradigm shift and help in resolving the deadlock. All fields use mathematics, and all of you have a stake in good mathematics education (etcetera).

I am a scientist, maintain the standards of science and integrity, with impartiality and decency. Allow me to introduce myself **again** as an econometrician (also qualified for teaching economics) (Groningen 1982) and teacher of mathematics (Leiden 2008). On May 9 I alerted you to a **paradigm shift** that exists since 2008 and that **also** implies the need for **action** by boards and directors.

There is a key responsibility for the board of VOR and directors of institutes of training of teachers (ICL, **Appendix A**) for not having responded yet to my letter of May 9 2016. (two months ago).

Giving this lack of response, I had reason to think that the recent issue of pi – archi – tau could be an eye-opener. Every scientist who looks into this paradigm shift will agree that it is reasonable to regard this as a potential eye-opener indeed. (It might not be an eye-opener but it might work for some.)

**Some** of the persons mentioned above copied to some list (perhaps copied from a selection of addresses that I had made ?), suggesting that they consider it important that those others are aware of their rejection of involvement. I find this copying incorrect and also unkind for Karin den Heijer. My letter to her cc others had a clear purpose, and one should not abuse this. Perhaps there is "email abuse" but this definitely is an issue of science (and for some: science journalism).

Let me first review some points and then answer to the various requests.

### **(1) Reminder on the paradigm shift on mathematics education since 2008 and how it has been maltreated in that community in 2008-2016**

Why would students have difficulty in understanding mathematics if it is beautiful and makes sense and is logically convincing to the mind ? Low marks for students (for more subjects than mathematics) need not be due to students themselves, but may derive for an important part from so-called "mathematics" that is crooked and didactically wrong (and this percolates into other subjects that rely on mathematics education). Mathematicians have been trained for abstraction, and teacher trainings cannot always undo what has gone wrong before. When they meet students in class, they resort to some tradition, but that tradition has not been designed for didactics in an empirically sound manner.

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

### **(2) How the example of Archi = 2 Pi might be an eye-opener**

Last weeks there surfaced the example case of pi – archi – tau again. It is just an example. For me there is new *evidence* that there were also others who observed a problem here:

- **Matthijs Coster** in 1988, mentioned in Kennislink.nl and
- **Sander Niemeijer** in 1993, mentioned in NewScientist.nl.

This shows that I am not the only one in Holland who observed this problem, though it is only now that I hear about their existence. There is also the international group of enthusiasts around tau who have observed this issue, since 2001, but I have been in touch with them for a while already.

I consider this example from Dutch soil relevant, because it might be an eye-opener for others in Holland, to grow aware of:

- (a) How current education on pi and trigonometry looks like.

- (b) How it might be done better, see my book "*Elegance with Substance*" (2009, 2015) – with a legacy text in "*Trig rerigged*" (2008). Indeed, I don't just look at pi but also at trigonometry (Dutch goniometrie).
- (c) How the community around mathematics education responds: (c1) the traditional users of pi: misrepresentation, calling names, slandering or burking, and not do anything with the new information in 1988 or 1993 or 2008 that there is this problem, (c2) the abstract thinking mathematicians who embraced tau: neglect of the criticism that tau looks too much like the symbol  $r$  for the radius, so that we get horrible math exams (in the handwriting of students).

### (3) Use of letters and email instead of publication in journals

Before I contacted you by the letter of May 9, I checked whether it might have been possible to submit an article to PS on this deadlock. It turned out that this was too complicated, see my letter. It would require too much time, in both quantity and duration, to publish in such outlets, in also smaller steps. Thus my letter to the board of VOR and the directors of the institutes for training of teachers was a fine solution.

My use of letters and email has been wise, targeted and limited:

- (1) My letter to NRO of April 15 2016 wasn't cc VOR and Teacher Trainers and authors of pi – archi – tau. I only informed you about it later on.
- (2) My letter to VOR and Teacher Trainers of May 9 2016 was cc NRO but not cc authors of pi – archi – tau.
- (3) My letter to president KNAW and directorate of CPB cc VOR and NRO of May 17 with supplement of May 25 was a useful comment also w.r.t. the expected CPB-publication of "Kansrijk Onderwijsbeleid" (published June 20), also given my background as a scientific co-worker at CPB in 1982-1991. Many people in the community of mathematics education tend to see me as limited to ME or MER but forget the econometric angle on the political economy of the industry of ME and MER (ME(R)P), with my policy advice on a **parliamentarian enquiry** and the creation of a **Simon Stevin Institute** for Holland (and other countries similarly).
- (4) You didn't reply, and Kaldewaij of NRO sent me a reply that deconstructs into a non-reply. What to do ? I had reason to think that the issue of pi – archi – tau might be an eye-opener, and I included the latter in my second letter of NRO of July 12, cc VOR, Teacher Trainings and authors on pi – archi – tau.
- (5) My letter to Karin den Heijer of "*Beter Onderwijs Nederland*" (BON, and fellow teacher of mathematics) is fitting too, since there is mathematician Gerard Verhoef who at BON since 2008 has shown misconduct on pi – archi – tau, including some anonymi there too, and the board of BON hasn't corrected since 2009, while I don't understand that the board did not see this themselves earlier. This is part of the evidence for the deadlock. It is fitting that NRO and VOR and Teacher Trainings and authors of pi – archi – tau know about this. **BON participates in the Onderwijscoöperatie that advises NRO: and thus misinforms it too.** <http://archieff.onderwijscooperatie.nl/nro-onderwijscooperatie-en-kennisnet-gaan-samenwerken-leraar24> (**Appendix B**). For mathematics teacher Den Heijer at BON it is useful to be aware that mathematicians without qualification for education **Jan Hogendijk** slanders about Don Quichot and **Frits Beukers** slanders about "silly issues" (they haven't replied with a correction yet), and that they are quoted by NewScientist.nl and Euclides, but these media don't report on my analysis in "*Elegance with Substance*". (And for NewScientist.com my analysis would also be more interesting.)

### (4) Some crucial distinctions

I hope that you agree with me on these crucial distinctions (that might overlap):

- (1) between mathematicians versus teachers versus researchers in mathematics education
- (2) between science and ideology (Freudenthal Head in the Clouds Realistic Mathematics Institute, Beter Onderwijs Nederland, Stichting Goed Rekenonderwijs)
- (3) between reaction on content and misconduct (calling names, slander, neglect or burking)
- (4) between internet etiquette versus increasing irritation with "take me from the list".

Let me give answers to the various persons who I addressed and who dodge their responsibility as if I should not have addressed them.

#### **(5) Answer to Jan van Driel, involved in ICL, ICLON, VOR, DUDOC**

QUOTE

At 2016-07-13 16:40, Driel, J.H. van wrote:

**cc a whole list (and the first to do so, perhaps triggering others ?)**

Beste Thomas Cool,

Ik verzoek u vriendelijk om mij uit uw mail-lijst(en) te verwijderen.

Hartelijke groet,  
Jan van Driel

Op 13 jul. 2016 om 16:25 heeft Thomas Cool / Thomas Colignatus het volgende geschreven:

Aan Karin den Heijer, bestuurslid bij Beter Onderwijs Nederland (BON)

<https://www.beteronderwijsnederland.nl/content/bestuur-en-contact>

(...)

UNQUOTE

Dear Jan van Driel,

Thank you for your cordial greetings.

#### **(4.a) W.r.t. to Interuniversitaire Commissie voor Lerarenopleidingen (ICL)**

You are chairman of ICL till August 1 2016, see **Appendix A**. My letter of May 9 was also addressed to you, and it fits the mission of ICL. I have received no reply yet.

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

Your reaction is cryptic. I had rather seen that you would have explained what ICL or ICLON had done with my letter. I had rather also seen that you would have indicated who would be your successor. For this letter of July 15 I did some checks, and discovered that **Klaas van Veen** (Groningen) succeeds you. You might have reasoned that he already was in my selection, but still, please be aware that it makes a difference for someone to be informed properly (see for example Perry den Brok below).

#### **(4. b) On your departure to Melbourne**

I observe today that you depart to Melbourne, and had a goodbye reception from ICLON on June 30. Perhaps this is the reason for the email and **cc a whole list of others**.

But even in Melbourne the **paradigm shift** is the same. See again my letter of May 9, and that Holland has an advance in research (for this window of opportunity).

#### **(4. c) On ICLON**

My letter of May 9 mentioned that I got my teaching degree in Leiden (and it was also repeating in the cover email that attached that letter). I got my degree for teacher of mathematics at ICLON in 2008. I greatly value my trainer Peter Kop and can recommend him. I do not copy to him since I consider this a conflict of interests, but you or others may show this letter to him. I have been hesitant to ask the Alma Mater for protection against the calling

of names, slander or neglect or burking in the community of mathematics education. I did hope however that ICLON would see the malconduct and offer that protection spontaneously. Perhaps ICLON has been giving that protection in ways that I am not aware of. Normally a thesis supervisor would offer that kind of protection, but I have not been able to find one, potentially also because of that culture of abuse, name-calling, slander, neglect or burking. Unfortunately, you don't offer that protection now, and your email cc others might even suggest that ICLON will not provide such protection so that my work so that others feel invited to more abuse. But perhaps you were not quite aware that I graduated at ICLON ? Please discuss this letter in ICLON before you leave.

#### **(4. d) On VOR**

We met once, at ORD 2010 at a session on Lesson Study, though my main reason to go there was to speak with David Tall. See:

<http://www.wiskundebrief.nl/535.htm#3>

<http://www.nieuwarchief.nl/serie5/pdf/naw5-2012-13-4-262.pdf>

<https://arxiv.org/abs/1408.1930>

Please observe that I am not inclined to go to ORD, since the admission price is rather high and PS is behind a pay wall, while NRO PROO imposes improper conditions for subsidy on my kind of research, see my letter to NRO. I might go and listen to research that neglects my research and that keeps on repeating errors that I have already discussed, but rather not. I might go for research that I don't know about but likely it would not be in my line of research so that I couldn't contribute and that might also be a waste of time.

Please observe that it might well be that my kind of research is close to your research angle on the teacher knowledge base (but then developed for mathematics education).

#### **(4. e) On your attitude w.r.t. education in mathematics**

I have no idea about your attitude w.r.t. education in mathematics. Your background is in chemistry, and thus you might have some distance w.r.t. mathematics, but you would be sensitive to the distinction between abstraction and the empirical mindset in science.

It remains a point that you and ICL cannot trust "researchers in mathematics education" like at the *Freudenthal Head in the Clouds Realistic Mathematics Institute* (FHCRM). It would be advisable for ICL to report to KNAW and Parliament that it is better to give support to my advice for a Parliamentary enquiry into mathematics education (and its research and policy making):

<http://www.ipetitions.com/petition/tk-onderzoek-wiskundeonderwijs>

For DUDOC 2016-2020 you are mentioned for Leiden while **Paul Drijvers** is mentioned for Utrecht. Drijvers should never have been appointed professor at a university, see my protest from back then. It is unscientific that teachers of mathematics are drawn into ideology in this manner. **You cannot deny your responsibility here.**

See also my recent comment w.r.t. the former round of DUDOC, with involvement of **Arthur Bakker**: and observe that it is humanly impossible for me to deconstruct the qualifications and work for every employee at FHCRM.

<http://www.wiskundebrief.nl/727.htm#7>

<https://www.nvww.nl/23268>

<http://thomascool.eu/Papers/Math/2016-06-28-Letter-to-NVWW-with-Red-Card.pdf>

#### (4. f) On your advice, collaborating with Monique Volman, for VO-Raad

Google generates also this advice "Professionele leraren", of 2014 for VO-Raad, the council on secondary education.

<http://www.vo-raad.nl/userfiles/bestanden/SLOA/Professionele-leraren.pdf>

"Voor u ligt publicatie 3; hierin staan de projecten gericht op professionalisering van leraren centraal. Wat kun je als docent opsteken van lesobservaties en feedback? Wat leer je van deelname aan onderwijsontwikkeltrajecten? En wat kan het voor je professionele ontwikkeling betekenen om als docent de rol van onderzoeker op je te nemen?" (cover)

"Leerlingen verwerven te weinig kennis, vooral van de kernvakken wiskunde, Engels en Nederlands, talent van met name excellerende leerlingen blijft onbenut en vervolgopleidingen zijn ontevreden over het niveau van de instromende leerlingen." (p3)

For you it is relevant to know that various of my findings in "*Elegance with Substance*" (2009, 2015) have been based upon observations in class and on exams. Also the diagnosis resulting into the **paradigm shift** derives from this.

Perhaps you might state that your report had only a limited focus. However, why ?

- (a) Your report does not refer to "*Elegance with Substance*" (2009, 2015), even though you refer to NWO / NRO / PROO (by Klaas van Veen).
- (b) Your report does not refer to the "math wars" and abuse that teachers may meet.
- (c) Your report does not refer to the KNAW 2009 report on arithmetic education, and neither deconstructs that report as misleading.
- (d) Your report does not report on the shown incompetence at FHCRMI w.r.t. the above and computer algebra since 1990 (in ICT).

Don't you agree with me, that it was useful that I informed VOR and ICL about the paradigm shift, so that you now can inform VO-Raad that your report of 2014 had some serious omissions ?

#### (4. g) On philosophy and religion

There is also DUDOC – alpha, of which you are a member, and you are thesis supervisor for Jeannette den Ouden at ICLON on didactics of philosophy and religion.

<https://vakdidactiekgw.nl/profiel/jan-van-driel/>

I hope that you are aware of my proposal for a multidisciplinary project "The simple mathematics of Jesus" (SMOJ) (2012) ? Mathematical abstraction can be quite deluding, and the same delusion from abstraction can be found in philosophy and religion, with the modern abuse by terrorism on this. It would be advisable for mathematics education to collaborate with other fields like history and philosophy on helping students to properly handle the relation between abstraction and reality.

<http://thomascool.eu/Papers/SMOJ/Index.html>

What should worry educators in Holland greatly is that the editors of *Euclides*, journal of NVvW, have been blocking the discussion of my books since 2012:

<http://thomascool.eu/Papers/AardigeGetallen/2016-03-10-Email-Euclides-tav-censuur-boeken.pdf>

#### (4. h) On mathematics and languages

There are various links of mathematics to languages too, see:

<https://boycottholland.wordpress.com/2015/08/29/research-on-number-sense-tends-to-be-invalid/>

<http://thomascool.eu/Papers/NiceNumbers/2015-09-02-Numbers-Need-for-a-standard.pdf>

<http://www.wiskundebrief.nl/717.htm#10>

<http://www.joop.nl/opinies/algemeen-beschaafd-rekenen>

#### (6) Answer to George van Hal, journalist at NewScientist.nl

QUOTE

From: "Hal, George van"  
To: "Thomas Cool / Thomas Colignatus"  
Subject: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie  
Date: Thu, 14 Jul 2016 09:11:09 +0000  
**Not cc others**

Beste Thomas Cool,

Bij deze ook van mij het vriendelijke verzoek mij niet langer over dit soort zaken te mailen.

Voorts een korte reactie op uw oorspronkelijke mail over het pi/tau-verhaal: ik begrijp uw inhoudelijke punt en de pi/tau-kwestie is wel degelijk interessant (vandaar ook mijn verhaal erover). Ik deel echter geenszins uw inschatting van de zwaarte van de geciteerde uitspraak over Don Quichot. Dat is uiteraard een discussie die je eindeloos kunt voeren, maar daar ben ik verder niet voor te porren. Wat mij betreft is daarmee de kous af.

Tot slot alvast een eveneens in alle vriendelijkheid bedoelde tip: wie gehoord wil worden, doet er goed aan zijn of haar punt kort en bondig te mailen – zonder pagina's lange documenten – naar alleen de direct betrokken personen. Op deze manier jaagt u mensen slechts tegen u in het harnas en wordt u niet gehoord.

Bedankt en met vriendelijke groet,  
George

**Van:** Sanne Deurloo  
**Verzonden:** donderdag 14 juli 2016 9:41  
**Aan:** 'Goris, Tom A.J.G.'; Thomas Cool / Thomas Colignatus; K den Heijer  
**CC:** Jansen, Jim; Hal, George van; (... long list ....)  
**Onderwerp:** RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,

Ook ik wil graag van je mailinglijst af. Bedankt vast.  
Met vriendelijke groeten

Sanne Deurloo

**Van:** Goris, Tom A.J.G.  
**Verzonden:** woensdag 13 juli 2016 23:57  
**Aan:** Thomas Cool / Thomas Colignatus; K den Heijer  
**CC:** Jansen, Jim; (... **long list** ...)  
**Onderwerp:** RE: Vraag over BON (wellicht voor de vakantie ?) /  
Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,  
Mag ik je vriendelijk verzoeken het mailadres vakbladeuclides [at] nvvw.nl uit deze maildiscussie te halen daar je zélf wegens het uitdelen van de rode kaart mij het veld uitgestuurd hebt en ik dus niet meer aan je spel kan deelnemen?

Groet!  
Tom Goris  
Hoofdredacteur Euclides

**Van:** Thomas Cool / Thomas Colignatus  
**Verzonden:** woensdag 13 juli 2016 16:23  
**Aan:** K den Heijer  
(...)

UNQUOTE

Dear George van Hal,

(1) Thank you for not copying to everyone else. Such copying only increases the irritation level, and I suspect that some people do so on purpose. The argument that everyone should be able to see that they don't regard themselves as accountable, breaks down from the fact that they are, though perhaps other people don't take the effort to look into this.

PM. You pass on these "replies" by Sanne Deurloo and Tom Goris but you haven't seen my response to this, see below, and perhaps you haven't even tried to image what this might be.

(2) I wish I as a scientific researcher had the luxury of a journalist to keep issues short and simple. I am very sorry, but I must document issues, which requires space. Especially when people with their qualifications and work are involved, this requires care. Also, you fail to grasp what this issue is about – said **paradigm shift** – of which pi – archi – tau is only an example. For now I only require that you perform well on this example. Thus rest assured that I know about the condition of "persons immediately involved" and that I indeed have addressed such persons, and that it is you and not me who has failed to understand who is involved.

(3) For you, the references to "Don Quichot" (Hogendijk) and "silly issues" (Beukers) might be incidents, and I already stated that I can imagine your frame of mind as a journalist that you did not ask clarification though you should have. See the dictum that a newspaper is used to wrap tomorrow's garbage. However, I also informed you about journalistic standards, for which one might add the durability of internet. You claim that the impact is not as strong as I diagnose, but that is your personal opinion, and thus you don't show proper respect for me as scientist. I took some lines to deconstruct it to the proper meaning, not only in Dutch but internationally. The persons you quoted are not qualified for mathematics education, which is sloppy reporting. I also told you about the *culture of abuse*, given the abuse at BON in 2008 and the "Don Quichot" in Euclides 2010, and so on. NewScientist.nl facilitates this culture, and you should not.

(4) There is really no reason for people to be annoyed when they stick to what they are supposed to do and reply to my modest questions that fit their responsibility. For example, when science journalists would report about the paradigm shift, the culture of abuse in the math wars, and the fine analysis in "Elegance with Substance" (2009, 2015), why would people not be interested in reading about this ? I already showed how unemployment can be



tackled, but when persons in responsible positions start censoring then the result is a social crisis of confidence:

<http://thomascool.eu/Thomas/Nederlands/VC/VertrouwensCrisis.html>

<http://www.thomascool.eu/Thomas/Nederlands/Wetenschap/2013-06-10-PosterBessensap.html>

In sum, your reply is probably kind but inadequate. There is no need to discuss this ad finitum as you erroneously suggest, and it is resolved when you would correct. It is not clear to me why you would not correct. Are you planning to recycle this article ad finitum, given that you don't see a reason to correct because this is your personal preference ?

Given your statement, I am wondering whether this should be something for the Raad voor de Journalistiek – "Foundation of the Press Council", <https://www.rvdj.nl/english>.

I am afraid however that such council will regard Hogendijk and Beukers as professors of mathematics with academic freedom of expression, which you only quoted, whence you would be absolved from your misleading and abusive report. Perhaps this is more something for the association of science journalists, who should be able to understand the distinctions mentioned in section 3 above, though **Sanne Deurloo** is member of the board there.

<http://www.vwn.nu>

"(...) dat de VWN zich, naast bevordering van het vakmanschap, ontwikkelt tot het platform voor discussie over de ethische aspecten van wetenschapsjournalistiek en – communicatie."

On my use of email: I have mentioned that I use this wisely. I am aware that I have copied to you and NewScientist.nl more often these days, but that was **because you did not reply in fair time (with a correction)**, while it was relevant for others to know that there was no reply yet.

- Now I send this letter also to you to inform you of my position and rejection of your view, and to inform you that this now has been documented on my website.
- I don't think that there will be much more reason to copy to you, also given my present advice to people not to read NewScientist.nl

#### **(7) Answer to Sanne Deurloo, chief editor of Kennislink.nl (at nemo.nl)**

Sanne Deurloo came into focus on this issue, because of an article by **Alex van den Brandhof** on Kennislink.nl (supported by Nemo.nl) on pi and tau, in 2011.

<http://www.kennislink.nl/publicaties/tau-de-constante-der-constanten>

Earlier, I protested against a misleading article on Kennislink.nl w.r.t. voting theory. Alex van den Brandhof had been involved in this too, and if he had handled this correctly with proper respect for science, he might also have read "Elegance with Substance" (2009, 2015), and then he would also have noted the issue on pi –archi – tau before 2011.

<http://thomascool.eu/Thomas/Nederlands/Wetenschap/Artikelen/2013-02-14-PasOpMetWiskundeOverVerkiezingen.html>

<https://vragen.wetenschapsagenda.nl/vraag/hoe-valt-een-wetenschappelijk-kwalijke-fout-op-kennislinknl-tav-democratie-te-corrigeren>

<https://boycottholland.wordpress.com/2016/04/22/referenda-tend-to-be-silly-and-dangerous-see-the-brexit>

Sanne Deurloo, for many years now, **refuses to correct a plain error**. She allows a mathematician, Vincent van der Noort, who hasn't studied voting theory to make such an error. She refuses to show proper respect for a scientist who has studied voting theory and

who reports that error. And everyone can observe that it is an error. For, Vincent van der Noort states that no electoral system can be entirely fair, while he doesn't define fairness, and while the axioms of Arrow that he copies are inconsistent and thus provide no proper definition of fairness either. (See my meta deduction in "*Voting Theory for Democracy*", Ch. 9.2 see my website.)

After three years of mentioning that my website has moved, Kennislink.nl still has not adjusted the link to my better analysis, that Van der Noort was kind enough to include, though he didn't mention that it has appeared in "*Tijdschrift voor het Economisch Onderwijs*".

**(8) Answer to Nemo.nl, supervising Deurloo and Van den Brandhof at Kennislink.nl**

QUOTE

From: "Info NEMO"  
To: "Goris, Tom A.J.G.",  
"Thomas Cool / Thomas Colignatus",  
"K den Heijer"  
Subject: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie  
Date: Thu, 14 Jul 2016 09:30:20 +0000  
**Not cc to the long list**

Hallo Thomas,  
Zou u zo vriendelijk willen zijn om ook het mailadres info [at] e-nemo.nl te verwijderen uit deze e-mail discussie?

Met vriendelijke groet,

NEMO Science Museum  
t +31 (0) 20 531 3233

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Postbus 421  
1000 AK Amsterdam

nemosciencemuseum.nl  
nemokennislink.nl

Van: Goris, Tom A.J.G.  
Verzonden: woensdag 13 juli 2016 23:57  
Aan: Thomas Cool / Thomas Colignatus; K den Heijer  
CC: Jansen, Jim; (... **long list** ...)  
Onderwerp: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,  
Mag ik je vriendelijk verzoeken het mailadres vakbladeuclides [at] nvww.nl uit deze maildiscussie te halen daar je zélf wegens het uitdelen van de rode kaart mij het veld uitgestuurd hebt en ik dus niet meer aan je spel kan deelnemen?  
Groet!  
Tom Goris  
Hoofdredacteur Euclides

Van: Thomas Cool / Thomas Colignatus

Verzonden: woensdag 13 juli 2016 16:23

UNQUOTE

Dear "Info NEMO",

Thank you for at least not copying to a long list.

I wonder whether you understand why I wrote to you. If you would have understood, you likely would have replied on content.

Please check my above answer to Sanne Deurloo at Kennislink.nl.

Please observe that Kennislink.nl is supported by Nemo.nl, and that this is under responsibility of "*Stichting Nationaal Centrum voor wetenschap en technologie*", with subsidies e.g. by the Ministry of Education.

The Nemo website doesn't show a page on governance, and there is no (easy) contact address for a responsible supervisor.

The director is M. Buchel, but there is only the email address "Info NEMO".

<http://anbi.federatiecultuur.nl/wp-content/uploads/2016/04/2015-NEMO-geconsolideerd.pdf>

Thus, it is better that you create an email address such that a supervising body of scientists can be contacted on errors at kennislink.nl which the chief editor Sanne Deurloo refuses to correct, rather than asking me not to report an error at kennislink.nl. And now there are two errors: one on voting theory, one on  $\pi - \text{archi} - \text{tau}$ .

#### **(9) Answer to Tom Goris, chief editor of Euclides, journal of NVvW**

Tom Goris is since one year chief editor of Euclides, the journal of NVvW, the association of mathematics teachers in Holland. I have diagnosed this association to be seriously sick.

<http://thomascool.eu/Papers/AardigeGetallen/2016-03-06-NVvW-bestuur-desinformeert-het-parlement-over-het-rekenen.pdf>

<http://thomascool.eu/Papers/AardigeGetallen/2016-03-11-NVvW-is-een-ernstig-zieke-vereniging.pdf>

Before that, Goris was chief editor of the "Nieuwe Wiskrant", a publication of *Freudenthal Head in the Clouds Realistic Mathematics Institute* (FHCRMI). I don't understand why the NVvW board appointed Goris. I gave him the benefit of the doubt but he maltreated various issues, see my letter to VOR and Teacher Trainings:

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

Tom Goris sent two emails.

#### **(8. a) First email by Tom Goris**

I have already copied the first email message by Tom Goris a couple of times, but for reasons of composition let me restate it again.

QUOTE

Van: Goris, Tom A.J.G.

Verzonden: woensdag 13 juli 2016 23:57

Aan: Thomas Cool / Thomas Colignatus; K den Heijer

CC: Jansen, Jim; george at newscientist.nl; (... **long list ...**)

Onderwerp: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,

Mag ik je vriendelijk verzoeken het mailadres vakbladeuclides nvvw.nl uit deze maildiscussie te halen daar je zélf wegens het uitdelen van de rode kaart mij het veld uitgestuurd hebt en ik dus niet meer aan je spel kan deelnemen?

Groet!

Tom Goris

Hoofdredacteur Euclides

Van: Thomas Cool / Thomas Colignatus

Verzonden: woensdag 13 juli 2016 16:23

UNQUOTE

Dear Tom,

(1) Since Euclides has a role in my diagnosis of this *culture of abuse* and the "math wars" and in this example case of pi – archi – tau, I can understand that you respond to the others.

(2) You should have replied on content. However, the way how you respond is manipulative. Thus in this case you abuse the position that it should be fair when you respond to all others.

(2a) Instead you misrepresent the meaning of the Red Card that I gave you. The meaning is that I have judged *that it is better that you step down* as chief editor of Euclides, see the arguments that I gave for arriving at this judgement.

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

As long as you don't understand the importance of this advice and as long as the NVvW board allows you to continue as chief editor, you should maintain the functioning as chief editor to the best of your abilities.

It is a non-sequitur that my giving you the red card means that you wouldn't be able to reply on content. You actually only confirm my judgement that you should not be editor.

(2b) You also ask that the email address of Euclides is dropped. First of all, there are more editors than only you. Secondly, you better understand that Euclides is a public medium, and that other people will not appreciate it when I would criticise Euclides without showing that I inform you about this. They might only look at the argument when Euclides has been given the chance to reply. Thirdly, this suggestion of dropping is a suggestion to others as if my comment is not relevant and doesn't have to be looked into, which is burking. This is also abuse of "authority", for those others who have not looked into the case, and who assume that the position of chief editor of Euclides is a position of authority.

(2c) My use of the term "red card" indeed is an analogy from the game of soccer. However, your suggestion that I would regard this issue as a game is a misrepresentation. You are entitled to select your own analogies but if you intend this as an analogy then you disqualify yourself as a communicator, unless your intentions are to try to discredit my aims. Perhaps your intentions are to try to make me look silly as a person who has given a Red Card to both you and the board of NVvW, and perhaps this might have success for some people in the short run, but these red cards are well documented, as holds now for this event. Please, when you refer to the Red Card the next time, provide also the link why I gave it, so that people can check this.

**(8. b) Second email by Tom Goris**

QUOTE

From: "Goris, Tom A.J.G."  
To: "Thomas Cool / Thomas Colignatus", <db at nvww.nl>  
Subject: RE: Verzoek tot mogen kopiëren op mijn website van Euclides 91-7 pag 7 "Aanval op het getal pi"  
Date: Wed, 13 Jul 2016 22:24:04 +0000

Hallo Thomas,

Nee, daar geef ik als hoofdredacteur geen toestemming voor omdat ik vind dat je auteurs van bijdragen en geciteerde personen in bijdragen in de Euclides onheus bejegent:

- Je rondgestuurde retoriek over Jan Hogendijk bevat pertinente onwaarheden die je eigenlijk zou moeten rectificeren
- Je kritiek op Michiel Doorman neigt naar laster en stalking
- Je reactie naar Paulos over de recensie van Kees Hoogland vind ik abject.

Met vriendelijke groet én rode kaart, dus discussie verder (uit)gesloten,

Tom Goris

Hoofdredacteur Euclides

**Van:** Thomas Cool / Thomas Colignatus

**Verzonden:** dinsdag 12 juli 2016 10:15

**Aan:** vakbladeuclides nvww.nl

**Onderwerp:** Verzoek tot mogen kopiëren op mijn website van Euclides 91-7 pag 7 "Aanval op het getal pi"

Geachte redactie,

Mag ik op mijn website een kopie opnemen van het artikel van Euclides 91-7 pag 7 "Aanval op het getal pi" ?

U weet dat ik onderzoek aan dit onderwerp heb gedaan, en ik documenteer graag wat er hieromtrent gebeurt.

Met vriendelijke groet,

Thomas Cool / Thomas Colignatus  
Scheveningen

UNQUOTE

Dear board of NVvW,

The article "Aanval op het getal pi" in Euclides 91-7 page 7 is behind a paywall, while I have been referring to it in such manner that it makes sense to make it public.

Now that Tom Goris refuses to allow me to make this text public, let me ask you for such permission.

- (a) I find it awkward when other people cannot read the original text. Potentially, NewScientist.nl and Jan Hogendijk and Frits Beukers and the editors of Euclides are all best defended by giving readers access to the original article, so that people can check whether my representation has been fair or not.
- (b) Making this text public is also important since Euclides is the journal that looks at *education in mathematics*, while NewScientist.nl might argue that they only reported on a silly issue in *mathematics*.
- (c) I use this case on pi – archi – tau also as example and a potential eye-opener for the **paradigm shift** on mathematics education in general.

- (d) It is also evidence for misleading information in the mathematics education community (including research and policy making) in 2008-2016.
- (e) For example, the editors of Euclides 91-7 page 7 buried my analysis on pi, archi, xur and yur.
- (f) It would serve the purposes of Euclides when other people grow aware of opportunities for better education in mathematics.
- (g) It would not be reasonable to ask people to buy a copy of this issue so that they can have this eye-opener, while only the eye-opener might cause their interest.
- (h) Not providing this text would be censorship and burking.
- (i) Please observe that this involves science.

If Tom Goris finds that my text about Jan Hogendijk contains errors, then let Goris please specify what those errors would be.

Please observe that I provided professor Hogendijk with a draft text before going public, and that Hogendijk apparently did not reply, even though I have gone at length in making sure that the text reached him. My text actually explains all of this now, so it is unclear to me why Goris did not understand this.

Goris includes two other issues that do not apply directly to the issue of pi – archi – tau. This is a nonsequitur. I do not feel that I should reply on this, to get permission to put the text of "Aanval op het getal pi" on my website for proper documentation.

However, let me briefly reply to Goris's points, so that he might see that I am not treating people unfairly w.r.t. their qualifications and work.

- For Michiel Doorman, Goris may not be aware of my message to you and Doorman of July 11 2016, in which I informed all of you about my response to the Yogyakarta "keynote speech". I also informed all of you about how I discovered this speech, so that this discovery was a very natural process. The discovery was related to my letter to NRO of April 15 and the conference "Onderwijs meets onderzoek" of June 20, and that Doorman appeared to have received NRO education research funds while I find evidence that he is no researcher but an ideologue. It is also important that Doorman is member of the board of NVvW while he has no qualification for teacher or qualification for research in education since his "thesis" likely is no real thesis. As a mathematician he would be qualified for research mathematics though. Such points are actually explained here too: <https://boycottholland.wordpress.com/2016/07/11/pierre-van-hiele-and-michiel-doorman-misleads-indonesia-too>
- Kees Hoogland in Euclides abused the biography of John Allen Paulos to advertise for "realistic mathematics education". I protested on this on my weblog, and informed Euclides, Hoogland and Paulos on this protest. There was no need to inform Hoogland first, because he hadn't replied anyway to my earlier criticism on the education committee of "Platform Wiskunde Nederland" of which he is a member. Goris finds it repulsive that I protested and informed Paulos. Goris however has never reacted on content. Hoogland still has not provided an English translation of the key passage. <https://boycottholland.wordpress.com/2016/03/26/abuse-of-john-allen-paulos>

#### **(10) Answer to André Ran, (former) chairman of KWG**

QUOTE

From: "Ran, A.C.M."  
 To: "Thomas Cool / Thomas Colignatus"  
 Subject: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie  
 Date: Wed, 13 Jul 2016 15:25:06 +0000

Geachte heer Cool,  
 zou u zo vriendelijk willen zijn mij uit deze email lijst te verwijderen?  
 Met vriendelijke groeten,

Andre Ran

**From:** Thomas Cool / Thomas Colignatus  
**Sent:** 13 July 2016 16:23  
**To:** K den Heijer  
(...)

UNQUOTE

I thank André Ran for not copying to everyone else.

André Ran was chairman of "Koninklijk Wiskundig Genootschap" (KWG) in the last period, did nothing on this issue as far as I am aware of, and thus contributed to the failure of the community of "mathematics education" (and research and policy).

KWG and NVvW collaborate in "Platform Wiskunde Nederland" (PWN) but this particular form of collaboration is counterproductive:

- It suggests (to themselves and to others) as if research mathematicians would be relevant for mathematics education and its research. It is okay to keep in touch and exchange information, but PWN claims a special status for the "mathematics community", and this is something entirely different, and actually false.
- All fields of science use mathematics, and there is no special position for mathematicians in the education of mathematics.
- KWG should stay out of mathematics education, but when they barge into that field by joining up with NVvW (potentially trying to neutralise the ideologues at FHCRMI ?), then KWG forces me to copy this kind of letter to them.

<http://thomascool.eu/Papers/AardigeGetallen/2016-03-22-Minister-krijgt-een-misleidend-Deltaplan-Wiskunde.pdf>

Apparently KWG has a new chairman, though.

Why doesn't André Ran state so in his email, and do I have to find out by a google ? But perhaps he hasn't understood that I addressed him as chairman of KWG ?

**(11) Answer to Perry den Brok, member ICL, and (former) chair of a division at VOR**

QUOTE

From: "Brok, P.J. den"  
To: "Thomas Cool / Thomas Colignatus"  
Subject: RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie  
Date: Thu, 14 Jul 2016 09:01:48 +0000

Dag Thomas,

Ik kan er ook af. Ik ben geen voorzitter meer van de divisie Leraar en Lerarenopleiding van de VOR, en in die hoedanigheid heb je me volgens mij op de lijst gezet. De nieuwe voorzitter van de divisie is Rosanne Zwart.

Vriendelijke groet,

Prof. dr. Perry den Brok

Eindhoven University of Technology (TU/e)

Traverse 3.41 - P.O. Box 513, 5600 MB EINDHOVEN - Tel. +31 (0)40 247 47 02  
URL: <http://www.tue.nl/en/university/about-the-university/eindhoven-school-of-education/about-esoe>

**From:** Sanne Deurloo  
**Sent:** donderdag 14 juli 2016 9:41  
**To:** 'Goris, Tom A.J.G.'; Thomas Cool / Thomas Colignatus; K den Heijer  
**Cc:** Jansen, Jim; (... long list ...)  
**Subject:** RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,

Ook ik wil graag van je mailinglijst af. Bedankt vast.  
Met vriendelijke groeten

Sanne Deurloo

**Van:** Goris, Tom A.J.G.  
**Verzonden:** woensdag 13 juli 2016 23:57  
**Aan:** Thomas Cool / Thomas Colignatus; K den Heijer  
**CC:** Jansen, Jim; (... long list ....)  
**Onderwerp:** RE: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Hallo Thomas,  
Mag ik je vriendelijk verzoeken het mailadres vakbladeuclides [at] nvvw.nl uit deze maildiscussie te halen daar je zélf wegens het uitdelen van de rode kaart mij het veld uitgestuurd hebt en ik dus niet meer aan je spel kan deelnemen?  
Groet!  
Tom Goris  
Hoofdredacteur Euclides

**Van:** Thomas Cool / Thomas Colignatus  
**Verzonden:** woensdag 13 juli 2016 16:23  
**Aan:** K den Heijer  
**CC:** Jansen, Jim (... long list ...)  
**Onderwerp:** Re: Vraag over BON (wellicht voor de vakantie ?) / Nieuwe didactiek van wiskunde van de cirkel en goniometrie

Aan Karin den Heijer, bestuurslid bij Beter Onderwijs Nederland (BON)  
<https://www.beteronderwijsnederland.nl/content/bestuur-en-contact>

UNQUOTE

Dear professor Den Brok,

Thank you for not copying to everyone when there is no good reason for doing so.

I included you in the selection for multiple reasons. You are still representing Eindhoven in the ICL, see **Appendix A**.



My letter of May 9 was to the board of VOR and directors of Teacher Trainers. I still hope that you would be able to reply, and that you benefit from this potential eye-opener on  $\pi - \text{archi} - \text{tau}$ .

Also, I hope that you will not be annoyed, when you expect not to be in the selection but find that I still would include you for this second letter.

Perhaps it is a solution that I first inform you bilaterally why you are included, and that I subsequently send this out with your name still included for the second letter to VOR and Teacher Trainers (and so that others can see that you are included). This means that you will get two emails. It also shows that you put high demands on me in trying to communicate with you.

I would appreciate it when you would indicate that the issue has your attention and that I can expect a reply on content.

Thank you for informing me about the change at the VOR division. I hope that you already informed ms Zwart, so that the issue is no surprise for her.

<http://thomascool.eu/Papers/Math/2016-05-09-Letter-to-VOR-and-Trainers-of-teachers.pdf>

### **Concluding**

I hope that you recognise that my approach has been prudent, comprehensive, empathic, and patient, and that I have been very clear about the **paradigm shift** w.r.t. the education in mathematics and its research, which is important for other fields. Progress is blocked when there is no action on creating a Simon Stevin Institute (ISS), as explained above.

You are stakeholders and fresh to the situation, and before my letter of May 9 I have had no contact before with the VOR board or institutes of training of teachers, other than ICLON where I got my own degree. I kindly request that you use that freshness to study and retrain with a focus on said action.

This letter is also on my website.

Sincerely yours,

Thomas Cool / Thomas Colignatus  
Econometrician (Groningen 1982) and teacher of mathematics (Leiden 2008)  
Scheveningen  
<http://thomascool.eu>

## Appendix A: Samenstelling ICL July 14 2016

<http://www.universitairelerarenopleidingen.nl/samenstelling-icl-2>

Radboud Universiteit Nijmegen (RU)	Prof.dr. P. (Paulien) Meijer(vice-voorzitter)	Radboud Docenten Academie
Rijksuniversiteit Groningen (RUG)	Prof.dr. K. (Klaas) van Veen (voorzitter vanaf 1.8.2016)	Faculteit Gedrags- en Maatschappijwetenschappen
Universiteit Leiden (LEI)	Prof.dr. J.H. (Jan) van Driel(voorzitter tot 1.8.2016)	Interfacultair Centrum voor Lerarenopleiding, Onderwijsontwikkeling en Nascholing (ICLON)
Universiteit Utrecht (UU)	Prof.dr. J. (Jan) van Tartwijk	Centrum voor Onderwijs en Leren/FSW/afdeling Educatie
Universiteit van Amsterdam (UvA)	Prof.dr. P.F. (Peter) de Jong,	Faculteit Maatschappij- en Gedragwetenschappen, Interfacultaire Lerarenopleidingen (ILO)
Vrije Universiteit (VU)	Prof.dr. M. (Martijn) Meeter	Faculteit der Gedrags- en Bewegingswetenschappen
Universiteit van Tilburg (TiU)	Dr. M.A.A. (Marije) van Amelsvoort	Universitaire Lerarenopleiding Tilburg (ULT-FGW / Geesteswetenschappen/DCI en DCU)
Technische Universiteit Delft (TUD)	Prof.dr. M.J. (Marc) de Vries	TULO
Technische Universiteit Eindhoven (TU/e)	Prof.dr. P.J. (Perry) den Brok	Eindhoven School of Education (ESoE)
Universiteit Twente (UT)	Dr. J. (Jan) van der Meij	ELAN
Wageningen University (WUR)	Prof.dr. H.M.(Martin) Mulder	Afdeling Maatschappijwetenschappen , Leerstoelgroep Educatie- en competentiestudies (alleen educatieve minor)

## Appendix B. NRO, Onderwijscoöperatie en Kennisnet gaan samenwerken in Leraar24

<http://archieff.onderwijscooperatie.nl/nro-onderwijscooperatie-en-kennisnet-gaan-samenwerken-leraar24>

NRO, Onderwijscoöperatie en Kennisnet gaan samenwerken in Leraar24

Home » Actueel » Onderwijscoöperatie » NRO, Onderwijscoöperatie en Kennisnet gaan samenwerken in Leraar24

Het Nationaal Regieorgaan Onderwijsonderzoek (NRO) is de nieuwe partner van de Onderwijscoöperatie en Kennisnet in het online platform [www.leraar24.nl](http://www.leraar24.nl). Leraar24 is het platform van, voor en door de leraar, dat hen ondersteunt bij de uitoefening van hun beroep en dat bijdraagt aan hun professionalisering.

Leraar24 bestaat uit een kennisdeel en een kundedeel. Het kundedeel laat goede voorbeelden uit de praktijk zien. Voor dit onderdeel draagt een redactie van leraren zorg. Het kennisdeel wordt gevormd door een verzameling van thematische dossiers met resultaten van onderwijsonderzoek, bedoeld voor de onderwijspraktijk. De dossiers bestaan uit een toegankelijke samenvatting van wetenschappelijke kennis, aangevuld met implicaties en handreikingen voor de praktijk. NRO werkt samen met leraren en wetenschappers aan dit kennisdeel.

Leraar24 wil met het kennisdeel de afstand tussen de onderwijspraktijk en het wetenschappelijk onderwijsonderzoek overbruggen. Leraren en andere onderwijsprofessionals vinden op Leraar24 betrouwbare, praktisch toepasbare informatie voor de dagelijkse lespraktijk.

Het kennisdeel op Leraar24 bouwt voort op het voormalige Kennis Netwerk Onderwijspraktijk en Wetenschap (KNOW). De huidige dossiers zijn tot stand gekomen dankzij de inzet van vele betrokkenen bij het KNOW project. KNOW werd opgezet om de afstand te overbruggen tussen de onderwijspraktijk en het wetenschappelijk onderwijsonderzoek.

De kennisdossiers van Leraar24 zijn ook vindbaar via de NRO Kennisportal Onderwijs.

Het NRO werkt aan verbetering en vernieuwing van het onderwijs door onderwijsonderzoek te coördineren en te financieren, en door de verbinding tussen praktijk en onderzoek te verbeteren. Met deze missie is het NRO de aangewezen partij om samen met Kennisnet en de Onderwijscoöperatie verder te bouwen aan Leraar24.

Meer informatie:

Hanneke de Weger, NRO  
h.deweger [at] nwo.nl

Bert Groenewoud, Onderwijscoöperatie  
b.groenewoud [at] onderwijscooperatie.nl

Martijn Andela, Kennisnet  
m.andela [at] kennisnet.nl