

Kansei Engineering Approach for Measuring Political Propaganda: A Case of Malaysia

NurJannatul Jannah Aqilah Md Saad¹, Mat Razali Noor Afiza^{1*}, Muslihah Wook¹, Khairul Khalil Ishak², Hasmeda Erna Che Hamid¹, Nor Asiakin Hasbullah¹, Norshahriah Wahab¹, Norulzahrah Mohd Zainudin¹, Suzaimah Ramli¹, Mohd Fahmi Mohamad Amran¹

¹National Defence University of Malaysia, Kuala Lumpur

²National University of Malaysia

*Corresponding author E-mail: noorafiza@upnm.edu.my

Abstract

Propaganda is mainly designed to influence people's mental state on new ideas which is crucially used for political agenda. Back in 1950s, people used mass media to propagate propaganda. Nowadays, the usage of social media as a tool for political propaganda agenda either by the politician or the supporters are creating a game diverge in electoral campaign. This phenomenon is occurring in all over the world including Malaysia. Studies has proven that people who rich in Kansei is rich in emotions and sentiment, adaptive, warm and responsive. Unfortunately, little effort has been paid to use the approach for measuring Malaysians' emotions on political propaganda in various social media platforms. This study is proposing that Kansei Engineering (KE) could be used as an approach for analysing their emotion and sentiment. For this reason, KE incorporating with partial least squares (PLS) is used to measure and analyse the level of Malaysians' emotions regarding political propaganda via social media by constructing emotional descriptor or KW by adapting PANAS-X. The proposed technique could be used as a basis to build a framework to hinder the diffusion of negative political propaganda in the social media settings particularly in Malaysia.

Keywords: Kansei Engineering, Kansei Design, PLS-SEM, Political propaganda, social media,

1. Introduction

Propaganda is used to convey any information that propagandists wants people to know and influenced into, by any means of techniques. Propaganda could be essential tool of political campaigns in gathering support for candidates during election [1]. During Malaysia's 14th General Election (GE) that was held on 9th May 2018, we can see opinions and suggestions from the voters being posted in various platform towards all parties that took part in the GE.

In the current world scenario with the expansion of Internet of Thing (IoT) with a lot of devices are connected to the internet, any information can be accessed directly from mobile device by using the Internet connection. Enhanced by the emergence of the Web 2.0 or the social media, the Internet use ranging worldwide continue to increase by time. People are using social media to convey their opinion and also to support any propaganda provided by their political leader. The most popular media such as YouTube, could be a medium for propagandists to manipulate and disseminate propaganda and any kind of issues due to its' easy of accessibility to audience (Kadir et.al, 2016)[2]. As an example, on GE 2008, the opposition party use the social media as a platform to express their political propaganda and idea to gain public opinion and supports rather than using the traditional media such as the press media [2], [3].

However, little attention has been paid on negative political advertisement such as fake news on certain parties and candidates using the social media. Focusing on attacking the party aspirations and promises, this kind of negative political advertisement been viewed as a political propaganda. This scenario has been actively emerged in Malaysia as the widespread usage of the new media. Nevertheless, online readers especially the voters, should not be influenced on fake news as political propaganda that are design to create emotional appeal which is trust as the main element that could influence the acceptance towards online propaganda.

This preliminary study discusses the role of social media in conveying the political propaganda and Kansei Engineering (KE) approach could be used to extract the Malaysians' emotions on political propaganda via various social media platforms. We discuss that data related to the GE and political propaganda will accumulate huge volume of data. This study also discusses that by using PLS-SEM to analyze the collected data, we could get more accurate pattern or scenario of political propaganda and how the social media usage could affect the people emotion on online political propaganda in Malaysia.

2. Literature Review

Propaganda is defined as a communication process that designed by creator intended to influence mind and behaviour of people [4]. As we can say, propaganda is used to introduce and to spread new idea. In Latin, the word propaganda brings the meaning 'to sow' or 'to propagate' [5]. In 1718, the word propaganda was added to

the English language and dictionary. Initially, propaganda is related to propagate faith of Roman Catholic Church as a sociological meaning in propagating and spreading Christian [6]. While in 1950s when there is development in various mass media such as television and radios, the theories of propaganda are known to associate mainly with the totalitarian regime and the war effort that seem to be a threat toward the liberal democracy community [1].

2.1. Propaganda Techniques

By means, propaganda is deliberate and systematic attempts that designed by propagandists to shape behaviour, perception and manipulating cognitions to achieve their desired intent [5].

Shabo M. [7] in his book of 'Techniques of Propaganda and Persuasion', he stated 11 techniques of propaganda that being used by propagandist. They are "Assertion", "Bandwagon", "Card Staking", "Glittering Generalities", "False Dilemmas", "The Lesser of Two Evils", "Name Calling", "Pinpointing the Enemy", "Plain Folk", "Testimonials" and "Transfer".

Table 1 shows the explanation of the propaganda techniques in detail.

Table 1: Explanation of the propaganda techniques

Techniques	Explanation
Assertion	Simply stating a debateable idea with no qualification or explanation as a valid fact and being believed by subjects without questioning the integrity of the statement.
Bandwagon	Any situation in which people attempt to be part of the famous or popular group. It is relied on human nature that like to be with the winning side. Everyone is simply going along with what people most do or choose.
Card Staking	A technique where propagandist use unfair advantage while weakening other. Use misleading information out of context or simply obscure the information that contrary to it.
Glittering Generalities	A colourful vague used as to appeal emotion from audience. Example of famous glittering generalities are: freedom/liberty, strength, security, prosperity, choice, equality, and change.
False Dilemmas	This technique reduced all choices into only one option that available. It is essentially forced audience to choose an option that is labelled as 'good enough' regardless of its logical arguments.
The Lesser of Two Evils	This is contrary to False Dilemmas. This technique offered two bad alternatives and thus forcing audience to make a better choice of two options without considering other possibilities.
Name Calling	Propagandist use of negative words to enemy or opposing side. This technique is literally contrary to Glittering Generalities where insulting words take place of logical agreement.
Pin Pointing the Enemy	This is where parties blame each other for recent economic problem and could lead to a 'scapegoat' action.
Plain Folk	Encouraging his idea as good and thus reflects that they are operating on the benefit of ordinary people by claiming they are also ordinary.
Testimonials	Made by famous people on how much they like a product or politician. This could help a propagandist popularity and his/her propaganda.
Transfer	Association of false connection where they are sending unspoken emotional message. Example: a picture of a man with his nation flag will omit the patriotic spirit of him to audience even though his intention isn't.

For this study, only five techniques of propaganda that will be used which is "Bandwagon", "Card Staking", "Glittering

Generalities", "False Dilemmas" and "Name Calling" to classify item/category for social media propaganda elements

2.2. Social Media and Propaganda

The advent uses of Internet nowadays offered various information to people at their fingertips especially with the emergence of the Web 2.0 or mostly known as the social media. Social media is a mobile web based interactive platform which can allow people to share, discuss and to create any content on the web [8]. Their leverage social trust and social connectivity made them as multi-way communication are even more engaging than the television. There are several types of media social defined such as the blogs, collaborative projects and social networking. Blogs are defined as a web-based site that shared any information, picture, videos or data based on the author itself. Collaborative projects are defined as many people working together to make a content such as the Wikipedia. People anywhere can create and discuss any content on Wikipedia. As for the electronic document, online user trusted it as reliable and valid information to satisfy needs in terms of decision making process, personal knowledge or even for reference materials [9]. While for social networking, Facebook and Twitter are the most popular site where people share information, picture videos and files. The design of the social network application that are usually user-friendly and versatile [10].

Propaganda is mainly designed to appeal trust emotion of voters in accepting the propaganda itself. Trust are frequently defined in terms of confidence, expectation, belief and faith. Thus, it mainly to capture common thread that trustee anticipate trust upheld [9]. People are capable in instilling trusts towards the technology as the electronic document, shared information and even a computer system [9]. Other than sharing information among the social media users, people also used the Internet to know about the current situation of Malaysia's politics arena. 90% of Malaysia have access on social media account. In fact, compared to any other nations, Malaysians have the highest number of friends on social networks [11].

On the cybersecurity aspects, social media can bring influence that promote specific points of view, protest and conflict by publicize propaganda or even rebellion cry. Then again, through social media the discussion expansion and spread of information are also promoted by the community dialogue by means of the rumour squelch and anti-propaganda content [12].

Anti-propaganda content can also be referred to the fake news and false information to create a negative image on certain parties. Hence, this also increase the efforts of cybersecurity on growing potential of cyberattack on such as the hoax attack on disseminate false information and influences [12]. Based on the Kansei Information Security Assessment (KISA) [13] framework, it conceptualizes more on user emotional, trust, towards the information security in developing trust matrix based on Kansei Engineering (KE) that outlines the trust matter of user in the information security implementation and trust on sharing sensitive information.

Internet access firstly introduced to Malaysia was in 1996 [14]. The rise of Facebook and Twitter especially, enable people to access through the Malaysia political issues and progress [15]. Political observer said that political opponents were endorsed to spread any political campaign or propaganda with the widespread adoption of online media in Malaysia [16]. Most of the opposition parties and middle-class people employ the usage of Internet, newspaper, online newspaper, radios and television to express their political propaganda and views [17].

The 2008 Malaysia General Election (GE) witness the importance of the media consumerism whether mass media or social media as

a platform in implementing political campaign. Political campaign concerning any communication process using particular communication and media channel to convey any political propaganda to the people more systematically [18], [19]. Other than that, negative political campaign is not be excepted to be viewed as one of political propaganda in bringing fake news and false information. Furthermore, the main course of political campaign is to attract vast numbers of voter.

During the 12th General Election (GE) of Malaysia, social media is definitely an important instrument in conveying and promoting democracy [20]. Total Internet penetration from 2008 to 2015 are rose about 15% and are expected to rose more on 2015 [21]. While for the usage of media social are also exponentially increase as there are more users on Facebook and Twitter. After the GE 2008, the Government and Opposition started to use social media as their tools to appeal voters. As in GE 2013, there are much more political leader to have more account on social media, Facebook and Twitter respectively. As an example, PM Najib Abdul Razak have about 1.5 million followers on Twitter hence indirectly elevate the BN's engagement with the electorate. As for Opposition, the leader also has their own social media. As example, Lim Kit Siang have about 89 thousand followers on his Twitter account [3].

Social networking sites also be used to encourage and mobilize young adult to engage and to participate in politics [22]. Youngsters are more likely to engage into social networking sites in creating profiles to be compared to the older generations [23]. Thus, when it comes about the political issue, youngsters are more favoured to look into the social media rather than through the traditional media. Consequently, the inclusion of youngsters in politics are said as the target crowd of online political communication [22]. This is because, most of them used the social media sites as their platform to express their opinion and feelings concerning the political issues [24]. Hence, dissemination of any political propaganda using social media had been perceived the improvement of youth attraction to contribute more in the political field [25]. Social networking sites have been proved as a successful tool in gaining voters [19].

2.3. Kansei Engineering

The term 'Kansei' in Japanese language refers to emotion. It is a concept of sensing a phenomenon that builds impression. According to [26], Kansei is defined as people psychological feelings and image of a new product, idea or artefact. Harada [27] described Kansei as "an internal process of the brain, involved in the construction of intuitive reaction to external stimuli". In psychological domain, Kansei means harmonizing the mental state of knowledge, emotion and sentiment [26]. Although Kansei is often translated as feelings, sensitivity, sensibility and need relating to a product, the concept could also be extended to measure people's emotions on political propaganda. This is due to political propaganda that can be saw as an appeal to the emotions rather than to the intellect [2].

The method that is used to measure and analyse the Kansei is known as Kansei Engineering (KE) [28]. There are four main phases in KE, i.e. Domain Decision, Kansei Dimension, Product Design Dimension and Synthesis [27]. Apart of these phases, there are eight types of KE (category classification, computer-aided system, modelling, hybrid, virtual, collaborative and concurrent).

All KE's phases and types are designed to achieve the goal of measuring and analysing people's mental state of external stimuli. Since the nature of Kansei is always ambiguous, subjective and unstructured, it is scarcely to measure it directly. Depending on the objective, Kansei can be measured by various techniques such as fuzzy logics, neural networks, rough-set analysis, genetic

algorithm, linear regression, multiple regression, principle component analysis and structural equation modelling [27].

3. Proposed Kansei Engineering Approach for Measuring Political Propaganda

Emotional descriptor is core technique of translating emotion assessment into verbal descriptor in ways of self-reporting techniques, animation, facial expression and others that could be used as emotion triggers response of users towards products [27], [29].

Emotional descriptor is words that describe various emotion in multifield research purposes such as effective video content analysis [30], emotional contagion for viral video [31], and as well as image retrieval [32] [2]. In KE, emotion descriptor or keywords are called as Kansei Word (KW) that is prominently used by researcher in the form of adjective and noun [27].

This study used Kansei Words (KW) that selected and adapted from Positive Affective and Negative Affective Scale-Expanded (PANAS-X) as domain decision of this study is 'political'. PANAS-X is a 60-item of specific emotion assessment created by Watson and Clerk [33]. They suggested researcher to choose and pick only those scales that is relevant to their research [2].

Therefore, this study only selected 23-item that are most relevant to this political domain. Table 2 show the 23-item selected and adapted form PANAS-X. There are 6-items form Basic Negative Emotion Scales, 12-items form Basic Positive Emotion Scales and 5-items from Other Affective States which are selected. The stimuli of this study will consist of social media platform contents from Twitter and Facebook. All selected contents will be based on previous popularity and ranking of political figures or parties as shown in the number of "Like", "Dislike" Facebook while "Like" and "Retweet" for Twitter. Participants will evaluate emotional descriptor/KW adapted form PANAS-X in 5-point Semantical Differential (SD) scale of their emotion and feeling after reading each of the contents shown according to respected classified Item/Category.

Table 2: Selected scales from PANAS-X

PANAS-X Scales adapted into KW	
Basic Negative Emotion Scales (6)	
1.	Fear (2) – Jittery, nervous
2.	Hostility (3) – angry, irritable, disgusted
3.	Guilt (1) – Ashamed
Basic Positive Emotion Scales (12)	
1.	Joviality (4) – happy, delighted, excited, enthusiasm
2.	Self-assurance (6) – proud, strong, confident, bold, daring, fearless
3.	Attentiveness (2) – alert, determined
Other Affective States (5)	
1.	Surprise (3) – amazed, surprise, astonished
2.	Fatigue (1) – sluggish
3.	Shyness (1) – timid

Despite diverse techniques could be used to measure and analyze the Kansei, this study is focusing on the partial least squares (PLS) as little effort has been done to use the technique to measure the Kansei [27], [34]. In addition, PLS is a variance-based or component-based approach that able to predict and explain the variance of target variables by different explanatory measurements (Hair et al., 2012). The technique has recently gained increasing popularity as a key multivariate analysis method for measuring

emotions of users [35], [36] and customers [37], [38]. Figure 1 illustrates the proposed application of PLS to the design of KE for measuring Malaysians' emotions on political propaganda.

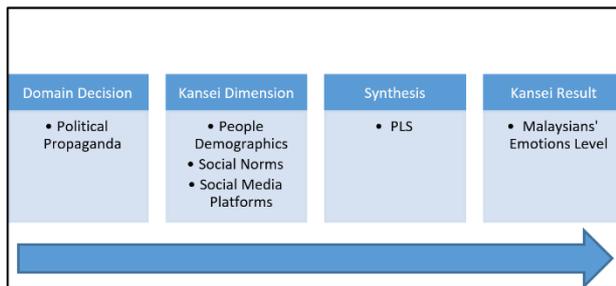


Fig. 1: The design of proposed Kansei Engineering approach

Thus, PLS will be used in identifying the relationship between emotion and the propaganda contents on social media platforms through results of the PLS coefficient score.

4. Conclusion and Future Works

The difference electorate votes in GE 2008 and GE 2013 of Malaysia obviously shows the prominence use of social media as a disseminate tools for politicians. Social media not only used by the Government and Opposition leader to deliver their own ideology but also be used by people to express their belief apropos to the political issues. Based on findings through the content analysis on narrative data, the Facebook and Twitter is seen to be the most effective social media site in the context of opinion leader to convey their message and propaganda.

Hence, by using social media as a tool to propagate political propaganda, there are mesmerizing result in people's electoral vote on GE 2013. GE 2008 had showed us that people are more to engage in political via the social networking sites instead of the traditional media. The game change in the Malaysia GE nowadays are basis on the influential of the social media used by either opposition or the ruling party. In addition, with the spread of fake news basis on political purposes also play the crucial role in voters' trust towards any online propaganda. Therefore, there could be a game changing while the election was made. Data analysis give prospective on having trustworthy online propaganda method.

Acknowledgement

This work was supported by Ministry of Higher Education, Malaysia under FRGS grant FRGS/1/2017/ICT04/UPNM/03/1.

References

- [1] S. T. Ross, "Understanding Propaganda: The Epistemic Merit Model and Its Application to Art," *J. Aesthetic Educ.*, vol. 36, no. 1, p. 16, 2002.
- [2] S. Abd Kadir, A. Mohd Lokman, and T. Tsuchiya, "Emotion and Techniques of Propaganda in YouTube Videos," *Indian J. Sci. Technol.*, vol. 9, no. S1, Dec. 2016.
- [3] J. Gomez, "Social Media Impact on Malaysia's 13th General Election," *Asia Pacific Media Educ.*, vol. 24, no. 1, pp. 95–105, Jun. 2014.
- [4] R. Boyce and J. A. Maiolo, Eds., *The Origins of World War Two*. London: Macmillan Education UK, 2003.
- [5] G. Jowett and V. O'Donnell, "Propaganda & Persuasion", SAGE, 2014.
- [6] Ahmad Sautfiah, "Propaganda untuk keamanan," *Malaysian Digest*, 2013. [Online]. Available: <http://malaysiandigest.com/opinion/129702-propaganda-untuk-keamanan.html>. [Accessed: 20-Jul-2017].
- [7] M. Shabo, *Techniques of propaganda & persuasion*. Prestwick House, Inc, 2008.
- [8] J. H. Kietzmann, K. Hermkens, I. P. McCarthy, and B. S. Silvestre, "Social media? Get serious! Understanding the functional building blocks of social media," *Bus. Horiz.*, vol. 54, no. 3, pp. 241–251, May 2011.
- [9] K. Chopra and W. A. Wallace, "Trust in electronic environments," in *Proceedings of the 36th Annual Hawaii International Conference on System Sciences*, HICSS 2003, 2003.
- [10] S. Joseph, "Social Media, Political Change, and Human Rights," *Boston College Int. Comp. Law Rev.*, vol. 35, 2012.
- [11] Simon Kemp, "Social, Digital and Mobile in Malaysia - We Are Social UK," 2012. [Online]. Available: <https://wearesocial.com/uk/blog/2012/01/social-digital-mobile-malaysia>. [Accessed: 07-Aug-2018].
- [12] R. Goolsby, L. Shanley, and A. Lovell, "On Cybersecurity, Crowdsourcing, and Social Cyber-Attack," *Office Of Naval Research Arlington Va.*, 2013.
- [13] K. K. Ishak, N. Afiza, M. Razali, A. M. Lokman, and K. Toshiyuki, "Kansei Information Security Assessment (KISA): Characterizing Trust as Stimuli for User Emotional Assessment in Information Security," vol. 9, no. December, pp. 1–6, 2016.
- [14] G. Brown, "The Rough and Rosy Road: Sites of Contestation in Malaysia's Shackled Media Industry," *Pac. Aff.*, vol. 78, no. 1, pp. 39–56, Apr. 2005.
- [15] M. N. S. Salman, A. Mustaffa, N., Salleh, M. A. M., & Ali, "Social Media and Agenda Setting: Implications on Political Agenda," *J. Komunikasi, Malaysian J. Commun.*, vol. 32, no. 1, 2016.
- [16] L. Willnat, W. J. Wong, E. Tamam, and A. Aw, "Online Media and Political Participation: The Case of Malaysia," *Mass Commun. Soc.*, vol. 16, no. 4, pp. 557–585, Jul. 2013.
- [17] C. George, "Media in Malaysia: Zone of Contention," *Democratization*, vol. 14, no. 5, pp. 893–910, Dec. 2007.
- [18] J. K. Raof, H. B. Zaman, A. Ahmad, and A. Al-Qaraghuli, "Using social network systems as a tool for political change," *Int. J. Phys. Sci.*, vol. 8, no. 21, pp. 1143–1148, Jun. 2013.
- [19] S. Chinnasamy and I. Roslan, "Social Media and On-Line Political Campaigning in Malaysia," *Adv. Journal. Commun.*, vol. 3, pp. 123–138, 2008.
- [20] M. Azizuddin and M. Sani, "The Social Media Election In Malaysia: The 13th General Election In 2013," *Kaji. Malaysia J. Malaysian Stud.*, vol. 32, no. 2, pp. 123–147, 2014.
- [21] Adib Povera, "Internet users in Malaysia up from 2.5mil in 2006 to 24.5mil in 2017 | New Straits Times | Malaysia General Business Sports and Lifestyle News," 2018. [Online]. Available: <https://www.nst.com.my/news/nation/2018/02/331284/internet-users-malaysia-25mil-2006-245mil-2017>. [Accessed: 07-Aug-2018].
- [22] J. C. Baumgartner and J. S. Morris, "MyFaceTube Politics," *Soc. Sci. Comput. Rev.*, vol. 28, no. 1, pp. 24–44, Feb. 2010.
- [23] Sydney Jones and Susannah Fox, "Pew Research Center: Generations Online in 2009," 2009.
- [24] N. B. Jalli, "The effectiveness of social media in assisting opinion leaders to disseminate political ideologies in developing countries: The case of Malaysia," *J. Komun. Malaysian J. Commun.*, vol. 32, no. 1, pp. 233–260, 2016.
- [25] S. N. Boyman, "Pengaruh Politik Belia: Satu Analisis Penyertaan Konvensional di Malaysia Youth Political Participation: An Analysis of Conventional Investments in Malaysia," *J. Perspekt. (Perspective Journal)*.
- [26] N. L. Noor, A. M. Lokman, and M. Nagamachi, "Applying Kansei Engineering To Determine Emotional Signature of Online Clothing," *Tenth Int. Conf. Enterp. Inf. Syst.*, p. 142-, 2008.
- [27] A. M. Lokman, "Design & Emotion: The Kansei Engineering The Definition of Kansei," *Malaysian J. Comput.*, vol. 1, no. 1, pp. 1–11, 2010.
- [28] B. Rosen, L. Eriksson, and M. Bergman, "Kansei, surfaces and perception engineering," *Surf. Topogr. Metrol. Prop.*, vol. 4, no. 3, pp. 1–14, 2016.
- [29] F. Spillers, "Emotion as a Cognitive Artifact and the Design Implications for Products That are Perceived As Pleasurable."
- [30] S. Wang and Q. Ji, "Video affective content analysis: a survey of state of the art methods," *IEEE Trans. Affect. Comput.*, vol. 6, no. 4, pp. 1–1, 2015.
- [31] R. E. Guadagno, D. M. Rempala, S. Murphy, and B. M. Okdie, "What makes a video go viral? An analysis of emotional contagion and Internet memes," *Comput. Human Behav.*, vol. 29, no. 6, pp. 2312–2319, Nov. 2013.

- [32] H.-W. Yoo, "Visual-Based Emotional Descriptor and Feedback Mechanism for Image Retrieval," *J. Inf. Sci. Eng.*, vol. 22, pp. 1205–1227, 2006.
- [33] D. Watson and L. A. Clark, "THE PANAS-X Manual for the Positive and Negative Affect Schedule - Expanded Form," *Iowa Res. Online*, vol. 277, no. 6, pp. 1–27, 1994.
- [34] M. Hartono, "KANSEI Engineering Influences and Service Differentiation Among Singapore, Indonesia and Japan," National University of Singapore, 2012.(Doctoral Dissertation)
- [35] S. Fosso Wamba, S. Akter, A. Edwards, G. Chopin, and D. Gnanzou, "How 'big data' can make big impact: Findings from a systematic review and a longitudinal case study," *Int. J. Prod. Econ.*, vol. 165, pp. 234–246, 2015.
- [36] T. Santhanamery and T. Ramayah, "Explaining the e-Government Usage Using Expectation Confirmation Model: The Case of Electronic Tax Filing in Malaysia," in *Government e-Strategic Planning and Management*, New York, NY: Springer New York, 2014, pp. 287–304.
- [37] S. Albers, "PLS and Success Factor Studies in Marketing," in *Handbook of Partial Least Squares*, Berlin, Heidelberg: Springer Berlin Heidelberg, 2010, pp. 409–425.
- [38] F. Ali, M. Amin, and C. Cobanoglu, "An Integrated Model of Service Experience, Emotions, Satisfaction, and Price Acceptance: An Empirical Analysis in the Chinese Hospitality Industry," *J. Hosp. Mark. Manag.*, vol. 25, no. 4, pp. 449–475, May 2016.