

A Socio-pragmatic Analysis of "Versailles Literature" from the Perspective of Dramaturgical Theory and Memetics

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Abstract. "Versailles Literature" is a popular online phenomenon on Chinese social networks that is in essence a type of humblebrag. The impression management techniques of "Versailles Literature" on Chinese social media are investigated in this study through a quantitative and qualitative analysis of 150 authentic blogs collected from Sina Weibo. It finds that Chinese "Versailles Literature" impression management techniques include idealization, mystification, dramaturgical idealization, backstage preposition, and taste performance, and these strategies all appear in combination. Moreover, from the perspective of dramaturgical and memetic theories, this study also discusses the generation and evolution of "Versailles Literature" as a strong linguistic meme and Chinese netizens' motivations to deploy such a social practice by using hashtags #VersaillesLiterature, #VersaillesResearchandPractices, and #MasterofReverseVersaillesLiterature. The findings suggest that "Versailles Literature" is a type of powerful linguistic meme that belongs to the third type of memetic phenotype and has the properties of copying-fidelity and fecundity, making it simple to identify and duplicate. With this sarcastic "Versailles Style" trend, individuals are able to conduct value introspection and realize their value which is not equivalent to the commercial value, thus deconstructing the ideology of the commodification of self in this materialistic and commodified society.

Keywords: "Versailles Literature" · Dramaturgical theory · Memetics · Linguistic memes · Impression management

1 Introduction

The development of 5G data technology has made cyberspace the second life platform of mankind. As an important element of cyberspace, social networks have become important channels for information dissemination in modern society in the context of the Internet +. Today's social networks have nurtured many network subcultures, including the Versailles-style speech or "Versailles Literature".

"Versailles Literature" has been circulating on social media for nearly two years, and was one of the top ten most popular words on the Chinese Internet in 2020. So

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far, there are 214,000 discussions and 980 million searches for blogs containing the hashtag #Versailles Literature on Sina Weibo. This term was first coined by Weibo user @xiaonaiqiu, who was inspired by a Japanese caricature called *The Rose of Versailles*, in which the lavish lifestyle of the French nobility during the Louis XV period is described by the author in numerous pages. Therefore, "Versailles people" is used by Chinese netizens to refer to the "Internet aristocrats" who are addicted to flaunting their luxurious lifestyles.

In order to explore the relatively new popular "Versailles Literature" phenomenon, and to better interpret the generation and evolution of "Versailles Literature" from the perspective of dramaturgical theory and memetic theory, this study focuses on the following research questions: What are the impression management techniques used by Chinese Weibo users in the practice of "Versailles Literature"? What are the reasons for the popularity of "Versailles Literature"?

In social interaction, individuals attempt to establish desired and favourable impressions to gain respect and liking from other people, so they can construct their identities, achieve desired outcomes, and enhance their self-esteem [1–6]. The strategies of self-presentation related to pursuing "Likes" are usually other-oriented [7, 8]. The dramaturgical perspective is adopted by scholars to interpret the self-presentation of vloggers, Internet celebrities, and the emotional branding of companies on platforms such as Sina Weibo, Facebook, and Twitter [9–14].

The memetic point of view is in favour of explaining network catchwords' prevalence and dissemination. The notion of "meme" is coined by Dawkins to represent a unit of information or culture [15]. Analogous to Darwinian evolution theory, memetics is the study of memes or the study of information and culture [16]. What is noteworthy is that the memetic approach has been incorporated into the pragmatic study of network catchwords, and the metapragmatic awareness of communicators as the host in applying linguistic memes was explored, and the pragmatic attitude as well as the rule of the memetic host, were also discussed [17–20]. Meanwhile, these catchwords ought to be guided to develop in a beneficial way. It is revealed that cultural, political, and network environments have a significant impact on the transmission of language memes [21]. Nonetheless, the functional change caused by the social environment and the study of "Versailles Literature" as a meme and meme culture have been hardly addressed [22, 23].

It is recommended that cross-disciplinary endeavour should be attempted in the theoretical aspects as well as the methodological aspects to better describe, interpret, and predict patterns and development of human interaction in digital time [24]. On the basis of previous studies, together with the analysis of collected data, this study attempts to explore "Versailles Literature" by building a more comprehensive theoretical framework through a socio-pragmatic approach.

The data were collected from Sina Weibo, a hybrid of Facebook and Twitter, and it takes the leading position among the most popular social networks in China. With reportedly similar market penetration to Twitter in the USA, Sina Weibo had 246 million active daily users and 566 million active monthly users till June 2021 [25]. The blogs containing the hashtags #VersaillesLiterature, #VersaillesResearchandPractices, or #MasterofReverseVersaillesLiterature were sorted out. Preliminary research reveals that the topic #VersaillesLiterature was highly clicked on Weibo (over 980 million clicks at the time

of data collection); the topic #MasterofReverseVersaillesLiterature received 50,000 discussions and 400 million times of clicks; and the topic #VersaillesResearchandPractices received 220 million of clicks as well as 41,000 discussions.

50 blogs using the hashtag #VersaillesLiterature, 50 blogs with the hashtag #VersaillesResearchandPractices, and 50 blogs using the #MasterofReverseVersaillesLiterature hashtag from November 2020 to July 2021 were randomly selected to build a small corpus for this study containing 150 blogs. Considering ethical concerns, identifying and sensitive information was handled following the guidelines of *Internet Research Ethics 3.0*, and all the names and other details that could identify the bloggers were replaced or removed to protect their privacy when dealing with the corpus [26].

An integrated framework of analysis is built, incorporating a dramaturgical analysis and a memetic analysis, to investigate the means of impression management and the reasons for the popularity of "Versailles Literature" on Chinese Sina Weibo in association with these three hashtags. The dramaturgical analysis from sociology is utilized in this study to investigate this innovative social practice of online self-presentation in terms of impression management techniques and performance. Furthermore, the memetic analysis is employed to further investigate the underlying factors of this viral linguistic phenomenon, which appears to be not only a relatively novel way of online self-presentation but also a type of linguistic meme.

Through a combination of qualitative and quantitative analysis, this paper argues that the five impression management techniques are related to "Versailles Literature", namely dramatic realization, mystification, taste statement, backstage preposition, and idealization, and they usually occur in combination rather than independently. By combining these five techniques, people are able to present the idealized version of themselves or their lifestyles to the audience, satiate the audience's curiosity of the backstage, keep the distance between performers and the audience, and accomplish a variety of goals, whether it is in essence self-praising or self-deprecating. Additionally, "Versailles Literature" is a kind of powerful linguistic meme that belongs to the third type of memetic phenotype and has the properties of copying-fidelity and fecundity, making it simple to identify and duplicate. Based on the analysis of the generation and evolution of "Versailles Literature", audience's dispelling of "Versailles Literature" from a binary relationship between construction and deconstruction was presented, and this antagonistic relationship reflects the group's values, identity anxiety, and identity issues. Therefore, the "Versailles Literature" has already received value guidance, objective and rational treatment from mainstream media and all walks of life, attempting to effectively eliminate its negative effects, such as creating the illusion of success or fostering an inferiority complex. Through this functional change, "Versailles Literature's" positive effects have been effectively released, contributing to the maintenance of the sustainable healthy development of society.

Techniques	Frequency	Percentage (%)
Dramatic realization, Backstage preposition (text)	47	31.33
Dramatic realization, Backstage preposition (picture)	25	16.67
Dramatic realization, Backstage preposition (text and picture)	3	2.00
Dramatic realization, Mystification, Backstage preposition (picture)	1	0.67
Dramatic realization, Mystification, Taste statement, Backstage preposition (picture)	11	7.33
Dramatic realization, Mystification, Taste statement, Backstage preposition (text)	10	6.67
Dramatic realization, Mystification, Idealization, Backstage preposition (picture)	19	12.67
Dramatic realization, Mystification, Idealization, Backstage preposition (text)	34	22.67
Total	150	100

Table 1. Frequency and percentage of impression management techniques of the collected posts

2 Impression Management Techniques Employed in "Versailles Literature"

This part presents the types of impression management techniques associated with the collected posts in the practice of "Versailles Literature" on Sina Weibo. As shown in Table 1, "Versailles Literature" was associated with a relatively limited number of types of impression management techniques, namely, dramatic realization, mystification, taste performance, idealization, and backstage preposition (in the form of text, picture, or both). These strategies, which are normally used in combination, will be illustrated in the following subsections separately.

2.1 Dramatic Realization

While in the presence of others, individual typically infuses his activity with signs which dramatically highlight and portray confirmatory facts that might otherwise remain unapparent or obscure [1]. Therefore, in the practice of "Versailles Literature", people typically "dramatize" their behaviour by emphasizing and highlighting the aspects that they want to convey the most. This strategy is used in every blog in the dataset (100%). Indeed, dramatic realization is an essential way for the speaker to make the performance more impressive and brag about him/herself implicitly.

Example One: "#VersaillesLiterature# Today's experience really makes me speechless. Not only the beer and watermelon juice were specially offered by the restaurant for free but our dinner was also on the house. A guy chased after me for my Wechat ID even when I had already gotten in the car. What a tough rainy day"!

In the above example, the blogger employed two of the "Versailles Literature" pragmatic strategies proposed by Ren and Guo, namely, narration and complaint [27]. The blogger simply described her experience of that day, however, since the chances for restaurants to offer a free meal are rare, and the chance of being asked for the Wechat ID is higher for good-looking people, it can be speculated that the blogger's real intention is to tell the audience that she is lucky and pretty. Thus, the following complaint related to how annoying it was to have two qualities that people admire produces a clear expression of superiority.

2.2 Mystification

Mystification refers to a technique that may be utilized to inspire a sense of awe. Thus, the observers may be held in a mystified state regarding the performers. Employing mystification as a technique during a performer's self-presentation is beneficial to attract more audience. This may account for the popularity of this technique.

Example Two: "#VersaillesResearchandPractices# I went to Hermès to buy something casually, all the sales assistants were smiling at me, saying 'hello handsome guy, you must be an idol trainee', and asked for my WeChat ID. Although I hate this kind of behaviour, the work of these sales assistants is really hard".

In Example Two, the blogger accentuated his pretty face by quoting the praise from the third party but concealed his pictures from the audience. The utilization of this technique is to regulate the information acquired by the audience thus avoiding the failure of maintaining social distance or regulating contacts.

2.3 Taste Statement

According to Goffman's dramaturgical approach, "the role of expression is conveying impressions of self" [1]. Thus, the taste statement is the highest-level expression generated by blogs. At this level, the expression is not only a statement about qualities but also specific interests. This technique accounts for a relatively lower proportion in the dataset (14%). In Example Three the blogger humblebragged her aesthetic taste and financial status since the clothes of those luxury brands are well-designed and expensive. Besides, by taking this textual performance, the blogger sought to find her taste community and build her status identification.

Example Three: "#VersaillesLiterature# Fortunately, it was H&M being boycotted. If it was Louis Vuitton, GUCCI, CHANEL, Hermès, or Dior, then I wouldn't have any clothes to wear".

2.4 Idealization

Idealization is another pivotal socialization tactic that people frequently employ, namely in interpersonal interactions. Performers have the tendency to present observers with their idealized impressions. The concealment of the aspects of lives that performers do not want observers to see and thus systematically attempting to hide is one aspect of the idealization that Goffman explored with considerable length.

For instance, in Example Four, the blogger beautified and modified her self-image related to the manor and the outdoor sports equipment, and presented her ideal self-image by hiding the facts which are inconsistent with it.

Example Four: "#VersaillesLiterature# Gaining weight is so fast in the Autumn, so I climbed a mountain to exercise and have some fresh air, but unfortunately, this manor of mine is too big and I was exhausted after the exercise"!

2.5 Backstage Preposition

Of all the strategies, backstage preposition and dramatic realization occurred in every collected blog (100%). Traditionally, the exhibition area includes two components, namely frontstage and backstage. The former is directly exposed to the audience, while the latter belongs to the category behind the scenes and is not seen by the audience. However, the boundary between the two, which is supposed to have a clear division, is no longer clear as usual or even has the tendency to disappear. Take the blog below as an example.

Example Five: "#MasterofReverseVersaillesLiterature# Every day I take a vehicle which is worth tens of millions of RMB to and from work, and a special driver picks me up and drops me off. My salary is actually not worth mentioning, but I still ask myself to work one hour more than others every day, because I can get a seat on the subway after the evening rush hour".

In Example Five, the blogger first bragged about his seeming extravagance lifestyle in an exaggerated way, which can be seen as the frontstage performance, then the function of the last sentence is to reveal the backstage that he is not a millionaire, rather, he is a normal white-collar who has to work from nine to five and takes the subway home instead of driving by himself.

In summary, it is found that the five impression management techniques related to "Versailles Literature" usually occur in combination instead of occurring separately. Blogs containing #VersaillesLiterature and #VersaillesResearchandPractice usually employ three and four impression management techniques to pretend to inadvertently show off their privileged life. Unlike these two types of blogs, blogs with the hashtag #MasterofReverseVersailleLiterature mainly deploy two techniques, namely dramatic realization and backstage preposition. Blogs of this kind usually contain selfpraising statements and the actual purpose is to draw attention to something that the blogger is not proud of. The latter backstage preposition of these types of blogs usually reveals the difficult living situation to form a contrast with the former self-praising words, thus amusing the blogger himself/herself and the audience. The findings suggest that, though there are only five impression management strategies, with the random combination of these five techniques, individuals are able to present the idealized self or lifestyle to the audience, keep the distance between performers and the audience, satisfy the audience's curiosity of the backstage, and achieve different goals, whether it is in essence self-praising or self-deprecating.

Impression management is a method used by actors to alter their looks and characters to fit in the setting, and it also explains that in the process of human interactions, individuals attempt to present their self-images that would be accepted by a certain community. Thus, impression management strategies are then utilized by the actors to build a particular impression in a particular situation for a particular goal. People frequently

manage their impressions to meet the demands of others on their social media accounts. Namely, every individual prepares what he would present on social networking, in the forms of texts, images, or videos. Additionally, those who view the post are encouraged to believe it and form a certain impression of the blogger. Everyone is participating in this dramaturgy game, intentionally or unintentionally.

Underlying Reasons for the Popularity of "Versailles Literature"

3.1 "Versailles Literature" as a Strong Linguistic Meme

Memetics is a theory used to explain the law of cultural evolution, and the basic unit for the evolution of language is a linguistic meme. As a successful strong meme, "Versailles Literature" possesses the feature of copying fidelity and fecundity.

A successful meme should keep some characteristics that are the same as or similar to the original memes. The more faithful or accurate the copy is, the more original it will remain after several generations of copying. Copying-fidelity is about how possible a meme can continuously mutate when it is transmitted [28, 29]. "Versailles Literature" belongs to the third type of memetic phenotype, namely transmitting totally different meanings in the same forms as the original ones by changing contents.

To be successful, a meme should make sure it can be copied in large quantity, namely the times that a meme gets replicated and transmitted are enough to attract attention. The more popular a meme is, the more significant number of its copies it has [17]. Fecundity is about how acceptable a meme is in a population. The faster the rate of copying is, the more possibly a meme will get replicated and transmitted [28]. The transmission of "Versailles Literature" is not limited to online communication and social media. Oral communication is also the channel for its replication.

To put it simply, with its finite number of associated pragmatic strategies and its function in impression management, "Versailles Literature" is easy to be recognized and imitated [27]. Therefore, it is a successful meme that can spread rapidly.

3.2 People's Motivations for Practicing "Versailles Literature"

As a new network subculture, "Versailles Literature" has entered the public eye through fission transmission and network fermentation. At first, "Versailles Literature" was created by "Internet aristocrats" to humblebrag their privileged life. However, it is not necessarily associated with actual wealth and status, rather, it is all about how certain people want others to perceive them and their wealth.

Many people see others showing off and aggravate their own insecurities about wealth, status, and vanity, and are driven to humblebrag. At present, the vast majority of people conceal a deep inner vanity behind their outward appearances. Some people imagine a large number of "audience" and rely on others' observations to promote themselves to form their own identity, particularly in the current digital economy. After "Versailles Style" became a trend, the hashtags #VersaillesResearchandPractices and #MasterofReverse Versailles Literature went viral as well. Netizens pointed out the "Versailles Literature" they spotted on social media, and then wrote posts like these themselves, making

fun of those "Versailles People's" vanity. By mimicking how others humblebrag, netizens are no longer annoyed by affluent people showing off. The initial annoyance is resolved with humour. With this sarcastic "Versailles Style" trend, more people are able to conduct value introspection and realize that a person's value is not equivalent to his commercial value, thus deconstructing the ideology of the commodification of self in this materialistic and commodified society.

Based on the analysis of the generation and evolution of "Versailles Literature", the virtual performances, the mirror misidentification of self-fascination, and the audience's dispelling of "Versailles Literature" from a binary relationship between construction and deconstruction were presented. This antagonistic relationship reflects the group's values, identity anxiety and identity issues behind the phenomenon of "common learning". As Lou and Xue pointed out, the social environment can not only direct the functional change of linguistic memes to some degree but also has an influence on the attitude of memetic hosts as well as other social factors associated with linguistic memes' replication, transmission, diffusion and variation [22]. For this reason, mainstream media and all walks of life have already given the "Versailles Literature" subculture value guidance and an objective and rational treatment to effectively eliminate its negative impacts, such as creating the inferiority complex or the illusion of success. Through the functional change, "Versailles Literature's" positive effects have been effectively released, contributing to the maintenance of the sustainable healthy development of society.

4 Conclusion

This study explores the impression management techniques associated with "Versailles Literature" on Sina Weibo and analyses possible reasons for its popularity. The findings indicate that Chinese bloggers adopt a certain number of impression management techniques to produce blogs of "Versailles Literature", which can be seen as a strong linguistic meme. Since only a few studies have explored online impression management from a cross-disciplinary perspective, this study adds to the existing socio-pragmatic literature on impression management. Furthermore, most of the research on online self-presentation focused on Western mainstream social media such as Facebook and Twitter, while self-presentation on Chinese social media is a relatively sparsely exploited field. However, the technical framework and community culture of social media vary from one country to another. Thus, this paper offers illuminating insights for self-presentation research on Chinese social media. This research also discusses the generations and evolution of "Versailles Literature" as the confrontational discourse between construction and deconstruction.

By examining blogs concerning "Versailles Literature" posted on Weibo, this study contributes to the existing research on online self-presentation in the Chinese context and strengthens people's cognition of this linguistic and social phenomenon. However, this study only focuses on "Versailles Literature" blogs posted on Sina Weibo, the findings of the current study may not, therefore, be generalizable to other contexts, such as message communication and face-to-face oral communication, due to the differences between digital genres and cultural backgrounds.

References

- 1. E. Goffman, The Presentation of Self in Everyday Life, New York, Anchor Books, 1959.
- B.R. Schlenker, Impression management: the self-concept, social identity, and interpersonal relations, Brooks/Cole Pub. Co, Cop, 1980.
- O. Sezer, F. Gino, M.I Norton, "Humblebragging: A distinct-and-ineffective-self-presentation strategy", Journal of Personality and Social Psychology 114(01) 2018 52–74. https://doi.org/ 10.1037/pspi0000108
- R.M. Kowalski, "Complaints and complaining: Functions, antecedents, and consequences", Psychological Bulletin 119(2) (1996) 179–196. https://doi.org/10.1037/0033-2909.119.2.179
- M.R. Leary, SELF-PRESENTATION: impression management and interpersonal behavior, S.L.: Routledge, 1996.
- M.R. Leary, R.M. Kowalski, "Impression management: A literature review and twocomponent model", Psychological Bulletin 107(1) (1990) 34–47. https://doi.org/10.1037/ 0033-2909.107.1.34
- S.J. Wayne, R.C Liden, "Effects of Impression Management on Performance Ratings: A Longitudinal Study", Academy of Management Journal 38(1) (1995) 232–260. https://doi. org/10.5465/256734
- S. Zivnuska, K.M. Kacmar, L.A. Witt, D-S. Carlson, V-K. Bratton, "Interactive Effects of Impression Management and Organizational Politics on Job Performance", Journal of Organizational Behavior 25(5) (2004) 627–640. https://doi.org/10.1002/job.262
- E. Krisnawati, "Dramaturgical Analysis of Vlogger's Impression Management on Social Media", Komunikator 12(1) (2020) 55–66. https://doi.org/10.18196/jkm.121035
- X. Li, The Analysis of Internet Celebrities' Impression Management Tactics on Social Media from the Perspective of Dramaturgical Theory, in: X. Han (Ed.), Proceedings of the 2021 3rd International Conference on Educational Reform, Management Science and Sociology, Francis Academic Press, United Kingdom, London, 2021, pp.224–227. https://doi.org/10. 25236/ermss.2021.037
- P.D. Marshall, "The promotion and presentation of the self: celebrity as marker of presentational media", Celebrity Studies 1(1) (2010) 35–48. https://doi.org/10.1080/193923909035 19057
- D. D. Wu, C. Li, "Emotional Branding on Social Media: A Cross-Cultural Discourse Analysis of Global Brands on Twitter and Weibo" Intercultural Communication in Asia: Education, Language and Values, 24 (2018) 225–240. https://doi.org/10.1007/978-3-319-69995-0_11
- E. Lillqvist, L. Louhiala-Salminen, "Facing Facebook", Journal of Business and Technical Communication 28(1) (2014) 3–30. https://doi.org/10.1177/1050651913502359
- 14. D.D. Wu, W. Feng. (2015) Pragmatist, Evangelist, or Sensualist? Emotional Branding on Sina Weibo. In: Ng, P., Ngai, C. (Eds.) Role of Language and Corporate Communication in Greater China. Heidelberg, Springer. 225-239.
- 15. R. Dawkins, The Selfish Gene, Oxford University Press, 1976.
- Z. He, X. He, "Memetics and Social Use of Language", Modern Foreign Languages 26(2) (2003) 200–209.
- 17. Z. He, X. Chen, Z. Xie, New developments in pragmatics: relevance, adaptation and memetics, Shanghai Jiao Yu Chu Ban She, 2007.
- Z. He, "Metapragmatic awareness in linguistic memes", TCSOL STUDIES (01) (2021) 41–47. https://doi.org/10.16131/j.cnki.cn44-1669/g4.2021.01.006
- J. Li, Z. He, "Subjectivity and Contextualization of Linguistic Memes", Foreign Language Research (02) (2014) 59–64. https://doi.org/10.16263/j.cnki.23-1071/h.2014.02.016
- Z. He, "Memetic Understanding of Language in Fashion" Shandong Foreign Language Teaching Journal 35(02) (2014) 8–13. https://doi.org/10.16482/j.sdwy37-1026.2014.02.011

- J. Zhou, J. Liu, "Social and Cultural Changes Reflected in Chinese Buzzwords", Contemporary Rhetoric (02) (2018) 63–70. https://doi.org/10.16027/j.cnki.cn31-2043/h.2018. 02.007
- J. Lou, B. Xue, An Analysis of the Transmission Rules of Popular Online Language "Versailles Literature" from Memetics Perspective, in: Proceedings of the Northeast Asia Foreign Language Forum in the Fourth Quarter of 2021, Northeast Asia Foreign Language Forum, 2021, pp. 79–89. https://doi.org/10.26914/c.cnkihy.2021.056228
- 23. Y. Zheng, "'Versailles Literature' as 'Meme' and 'Meme Culture'", Chuang Zuo Ping Tan (02) (2021) 27–30.
- D. Wu, C. Li, J. Feng, "Sociolinguistic Studies of New Media: Review and Prospect", Contemporary Linguistics 18(04) (2016) 514–531.
- 25. ii Media. "Weibo Q2 financial results: Revenue of \$574 million, net profit down 59%, the number of video accounts opened has exceeded 10 million". August 19, 2021. Retrieved on August 19, 2021. Retrieved from: https://www.iimedia.cn/c1040/80463.html
- a.s. franzke, A. Bechmann, M. Zimmer, C. Ess, and the Association of Internet Researchers (2020). Internet Research: Ethical Guidelines 3.0. Retrieved on August 19, 2021. Retrieved from: https://aoir.org/reports/ethics3.pdf
- W. Ren, Y. Guo, "What is 'Versailles Literature'? Humblebrags on Chinese social networking sites", Journal of Pragmatics 184 (2021) 185–195. https://doi.org/10.1016/j.pragma.2021. 08.002
- 28. F. Heylighen, K. Chielens. (2009) Evolution of Culture, Memetics. In: R.A Meyers. (Ed.) The Encyclopedia of Complexity and Systems Science. Heidelberg, Springer. 3205–3220.
- 29. A.G. Sutcliffe, D. Wang, "Memetic reproduction and protolanguage evolution", Memetic Computing 4(1) (2012) 19–31. https://doi.org/10.1007/s12293-012-0074-2

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