

(3) When an event concept itself should be the value of a case (object case in particular) in an event recursively, the event generation mechanism expands the description such as “event 1” to a case structure different from the case structure in which the expanded event is included. The previous mechanism has used predefined sets of case structures to be inserted in the position based on examples described by Propp’s theory. The examples have not three or more nests. The integrated narrative generation system uses a recursive function for dealing with this type of processing based on a predefined list of nested events. To achieve more general recursive processing will be a future issue.

(4) When one or more events have a mutual-dependence relation, the mechanism processes a special operation. In particular, when the value of the agent, object or location in a case structure must be equal to the value of the other case structure for the consistency among events, the mechanism uses a same value for the one or more elements and designates the range which the values can take in the noun conceptual dictionary. This is related to the “pairs of sub-functions”. The integrated narrative generation system prepares a procedure for treat this processing with reference to the story knowledge base in section II. Each of many data stored in the story knowledge base is a set with two or more events and the elements in the events need to have a mutual-dependence relation. One of the issues is that the number in the Propp-based mechanism is not many, while the number in the story knowledge base will be very many.

5. Conclusion

This paper described both of the overviews of our Propp-based story generation system and an integrated narrative generation system, and presented ways for incorporating the Propp-based system in the level of event generation mechanism into the integrated system towards the complete blending. The basic policy was that we incorporate the special mechanisms in the Propp-based system into more generalized mechanisms in the integrated system, however a part of the mechanisms such as actors’ roles in the Propp-based system will be considered to be arranged in the integrated system too.

References

1. T. Ogata and A. Kanai (2010), An Introduction to Informatics of Narratology (in Japanese). Gakubunsha.
2. T. Akimoto and T. Ogata (2012), Macro Structure and Basic Methods in the Integrated Narrative Generation System by Introducing Narratological Knowledge. Proc. of the 11th IEEE International Conference on Cognitive Informatics & Cognitive Computing: 253-262.
3. T. Akimoto and T. Ogata (2012), A Narratological Approach for Narrative Discourse: Implementation and Evaluation of the System based on Genette and Jauss. Proc. of the 34th Annual Conference of the Cognitive Science Society: 1272-1277.
4. V. Propp (1968), Morphology of the Folktale. University of Texas Press.
5. S. Imabuchi and T. Ogata (2012), A Story Generation System based on Propp Theory: As a Mechanism in an Integrated Narrative Generation System. Lecture Notes in Artificial Intelligence, vol.7614: 312-321.
6. S. Imabuchi and T. Ogata (2013), Methods for Generalizing the Propp-based Story Generation Mechanism. Lecture Notes in Computer Science/Lecture Notes in Information Systems and Applications, incl. Internet/Web, and HCI, vol.8210: 333-344.
7. P. Gervás (2013), Propp’s Morphology of the Folk Tale as a Grammar for Generation. Workshop on Computational Models of Narrative, a satellite workshop of CogSci 2013: The 35th meeting of the Cognitive Science Society: 106-122.
8. K. Oishi, Y. Kurisawa, M. Kamada, I. Fukuda, T. Akimoto and T. Ogata (2012), Building Conceptual Dictionary for Providing Common Knowledge in the Integrated Narrative Generation System. Proc. of the 34th Annual Meeting of the Cognitive Science Society: 2126-2131.