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## **SYSTEMS THEORY**

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### **DEFINITION AND THEORY DEVELOPMENT**

The origins of Systems Theory can be traced to the ancient Greek term *systema* referencing bringing or combining together as an organisation whole. Systems Theory has long been used to understand the behaviour of organisations and actors therein. Early research was keen to acknowledge the complex relations and interdependencies that shape the way work is conducted and managed. Exploring foundations of organisation theory, Selznick conceived of organisations as co-operative systems meaning that inquiry should not be limited to formal or procedural dimensions, but rather focus on changes in these dimensions. A key consequence was that ‘the state of the system emerges as a significant point of analysis’ (Selznick 1948: 29). Woodward’s intensive case studies of manufacturing organisations sought to counter universal arguments related to the impact of technology on the organisation of work. Woodward argued that to enable understanding “industrial firms would have to be studied as complex social systems and line-staff relationships looked as part of the whole and not in isolation” (1965: 6). Thompson’s (1967) classic treatise *Organizations in Action: Social Science Bases of Administrative Theory* was important in putting definitional parameters on System Theory serving as a critical foundation for subsequent thinking. Thompson referred to ‘complex organisations’ denoting a set of interdependent parts that make up the whole, but equally being ‘interdependent with some larger environment’ (1967: 6).

Turning to features of Systems Theory, Thompson importantly distinguished between closed and open systems. Closed systems were associated with hard sciences, involving rational linear logic, mechanical cause and effect mechanisms, and precise measurement (think of the inner workings of a clock). By contrast, open systems better captured the social dynamics of organisations and the environmental contexts that both enable and constrain them. Akin to what Selznick and Woodward (amongst a range of others) recognised, organisations were co-operative and complex, composed of interdependent parts, always nested and dependent on a broader system. Indeed, akin to a living organism, the very viability of a system (i.e., its reproductive ability, continuity, and adaptability) was understood as contingent on the resources and inputs of a given environment. It followed that organisations should be understood as differentiated systems, each leveraging and responding to the broader systems in which they are embedded. In this way organisations are negentropic, replenishing themselves by leveraging energy from the environment, engaging in a process of transformation and feeding output back to the environment.

Notable principles of Systems Theory include the idea of feedback loops and emergence, appreciating that organisations are always in a constant state of striving for balance or satisficing. System Theory therefore cautions against universal prescriptions or fixed solutions. Instead, the concept of equifinality recognises that organisations can deploy differing ways to reach the same final state. Systems Theory privileges adaptability, change and dynamism by being sensitive to the resource constraints and interruptions informing how inputs of energy

and resources are transformed to useful outputs. Further, Systems Theory (and especially its open system variant) accommodates non-rational organisational outcomes in the guise of legitimacy, power relations, informality and unintended consequences. Key insights into organisational functioning (including with respect to human resource management (HRM) practices) have been provided by open system theories exploring institutional forces promoting similarity, as well as the consequences of resource dependency (e.g., with respect to suppliers or customers).

While some interpretations view Systems Theory in a deterministic fashion, early work emphasised the concept of agency; organisations could self-regulate and act selectively in relation to their environment and circumstances e.g., by maintaining necessary exchanges while excluding others. Systems Theory thereby offers a powerful foundation to explore the dynamics of organisations and the context in which they operate. Unfortunately, however, a penchant for universal effects and static, efficiency-based logic, often underwritten by positivist research, served to reinforce more narrow closed system thinking. The early promise of Systems Theory was soon overtaken by variants of contingency theory (see also the entry on Contingency Theory) which sought to codify and render systematic relations between organisation structures, processes and outcomes. As the next section demonstrates, this tendency is equally true of the early promise and subsequent realities of Systems Theory logic as deployed in HRM.

### **SPECIFIC APPLICATION OF THE THEORY TO HRM: A FALSE DAWN?**

Foundational HRM texts drew upon Systems Theory to position HRM as strategic, integrated, and holistic, in contrast to its predecessor personnel management, which was seen as reactive, ad hoc and piecemeal (see also the first chapter in this book). In *Managing Human Assets* Beer and colleagues spoke of the danger of considering HRM as a set of ‘independent activities, each guided by its own practice tradition’ (Beer, Spector, Lawrence, Mills, & Walton, 1984: 4). Instead, reflecting Systems Theory logic, it was argued that human resource (HR) practices should be integrated, that HRM impacted multiple stakeholders and had broad multi-dimensional outcomes, and that, as a result of dynamic contexts, HRM policies should be ‘constantly re-examined’ (Beer et al., 1984: 7). Critical to early conceptualisation of HRM was the idea of congruence, both between HRM practices (often termed horizontal fit) and equally with the broader context of organisations (vertical or environmental fit). However, this contextual emphasis was quickly overtaken by empirical efforts seeking to demonstrate the universal relationship between HRM and performance, most notably in the guise of High Performance Work Systems (HPWS). While conceptually invoking Systems Theory via the idea of a mutually reinforcing bundle of HRM practices, empirical application of HPWS rarely explored any system properties or interactions, instead favouring simple indices or counts of practices as a proxy for HPWS. Thus, while the HPWS wave of research was impactful in legitimising HRM as important, its universal logic paid scant attention to the impact of context, except for narrow considerations e.g., industry, lifecycle or capital intensity. The most recent wave of HRM research in the form of HR process research has (re)turned HRM somewhat to its systems routes. This includes an emphasis on ‘system strength’ which unpacks HR’s impact as an unfolding process enabled by factors such as distinctiveness, visibility and consistency. This offers clear promise, returning to Selznick’s (1948) emphasis on system changes and privileging function as much as form.

While the above review presents a somewhat superficial and limited direct uptake of Systems Theory in HRM, this is not universally the case. Conceptual papers have long used the meta-

theory framing of Systems Theory to present holistic models of progress and in mapping out areas for future research. Systems Theory also provides a useful tool to animate criticism directed at mainstream theory. For example, Harney and Dundon (2006) used open system theory to challenge the assumptions of rationality, formality and the static nature of HRM theory when applied to the context of small and medium sized enterprises (SMEs). It is in relation to unpacking context and privileging understanding where Systems Theory has had more success and prominent application in HRM. This is most notable in the domains of international and comparative HRM, where the likes of institutional theory, varieties of capitalism (see also the entries on Institutional Theory – Comparative and Institutional Theory – Organisational) and the system dominance framework have helped in capturing the macro factors and dynamics forming the broader context in which HRM systems are embedded.

### **SUGGESTED TOPIC AREAS FOR FUTURE RESEARCH**

If progress in directly applying Systems Theory in HRM has been variable, recent calls for greater understanding of context and appreciation for environmental dynamism suggest that there is scope for a resurgence in systems thinking once more. In order to capture the complexities of HR realities it would seem appropriate to return to Selznick and recognise the role of the system as ‘a significant point of analysis’ (1948: 29). It is unsurprising that we see the emergence of research on eco-systems and the way HR interacts with the external environment, including to secure talent and knowledge. Systems thinking accommodates how the management of people naturally occurs across organisational boundaries whether it be in the form of contract or gig work, in drawing on the expertise and networks of employer or HR associations, or in managing the dynamics of loose or tight labour markets. Explicitly unpacking the distinction between closed and open systems and how HR seeks to navigate the environmental context of the organisations is an area ripe for analysis. Returning agency to the equation; how does the HR function actually function in terms of the on-going dynamics of capturing and utilising energy and resources and navigating the challenge of legitimacy and influence. Exemplars like Woodward (1958) remind us of the limits of a universal emphasis and dangers of a presumed unitarism i.e., the assumption that everyone has the same shared understanding and are working towards the same end goal. Instead, organisations should be treated as complex adaptive systems composed of multiple stakeholders, who frequently have competing interests and agendas (e.g., shareholders, managers, trade unions, employees or differing functions e.g., HR, information technology and finance).

So, what might a Systems Theory approach to HRM look like? First of all there should be a privileging of function over form. For too long HRM has been equated with certain structures, neglecting *how* people are actually managed. Specifically, what are the differentiated ways organisations respond to similar challenges and with what consequence? Second, HRM researchers should explicitly embrace and directly apply the rich palette of System Theory concepts including feedback loops, equifinality, time irreversibility (path dependency), entropy, informality, dynamic equilibrium, intended and unintended consequences. Third, HR analysis should extend beyond an exclusive focus on HR, to consider the multiple systems and stakeholders informing HR decisions. This will be all the more significant in the context of greater technological developments in the form of artificial intelligence (AI) and digital disruption (see also the entry on Socio-technical Systems Theory). Fourth, is an appreciation of systems dynamics and explorations of the sustainability of systems. Recent times, not least the COVID-19 pandemic, has exposed many of the limits of dominant HRM theorising, including a conceptual inability to incorporate change, dynamics and novelty in HR practices

Systematic reviews demonstrate how HRM research has explored the same limited range of HR practices, while important HR responses and interventions to the COVID-19 pandemic are not easily explained by existing theory (Harney & Collings, 2021). There remains a dangerous and limiting assumption that treats organisations as closed entities operating under steady state conditions with HRM viewed as a once of structural intervention. Application of Systems Theory opens pathways for research to better capture conditions of maintenance, change and sustainability of HRM in an ever-complex environment (e.g., Ogbonnaya, Daniels, Messersmith, & Rofcanin, 2022). Fifth, Systems Theory does not privilege the rational operation of systems thereby opening up understanding to the consequences of action, intended or otherwise. Focusing on the role of line managers in performance management, Harney and Lee (2022) argued that gaps between intended and experienced HRM should not be seen as something to be avoided or mitigated but rather acknowledged and embraced. This means that informal practice and deviance from established rules are seen as a practical reality versus a detrimental fault-line in HRM implementation. Finally, Systems Theory prompts a philosophical discussion about whether dominant methods in HRM research promote a closed systems view of organisations and equally how those excluded or locked out from dominant systems might find voice and areas for redress.

### **Summary: The ghosts of Systems Theory past**

From one perspective the largely superficial uptake of Systems Theory in HRM to date points to a fool's errand founded on a Russian doll (matryoshka) of nested contexts and a chimera of contingency variables. By contrast, those more optimistically inclined can highlight that direct application of Systems Theory provides a means to progress beyond barren steady state-concepts, dust-bowl uni-linear empiricism and dominant assumptions of rationality. Systems Theory certainly offers rich prospects for understanding and embracing context. Ultimately to successfully progress forward, HRM scholars would do well to be haunted by the ghosts of System Theory's past, learning from deeper engagement with their legacy and lessons. This might include recognising that science can be served just as well by a negative finding as by a positive one (Thompson, 1967: 107), that openness to the environment presents a 'persistent and inherent vulnerability' for organisations (Katz & Kahn, 1966: 454), that higher order systems 'typically create, elaborate or change structure as a prerequisite to remaining viable as on-going systems' (Buckley, 1967: 5) and that because personnel management [HRM] is 'intrinsic to all tasks functions, problems of responsibility and co-ordination are therefore inevitable' (Woodward, 1965: 114).

### **REFERENCES**

- Beer, M., Spector, B., Lawrence, P., Mills, Q., & Walton, R. (1984). *Managing Human Assets*. New York: The Free Press.
- Buckley, W. (1967). *Sociology and the Modern Systems Theory*. New Jersey: Prentice-Hall.
- Harney, B., & Collings, D.G. (2021). Navigating the shifting landscapes of HRM. *Human Resource Management Review*, 31(4): 1-9.
- Harney, B., & Dundon, T. (2006). Capturing complexity: Developing an integrated approach to analysing HRM in SMEs. *Human Resource Management Journal*, 16(1): 48-73.
- Harney, B., & Lee, Q.Y. (2022). A systems theory perspective on the front-line manager role. In K. Townsend, A. Bos-Nehles, & K. Jiang (Eds.), *Research Handbook on Line Managers*, Cheltenham: Edward Elgar, pp. 12-28.

Katz, D., & Kahn, R. L. (1966). *The Social Psychology of Organizations*. New York: John Wiley and Sons Inc.

Ogbonnaya, C., Daniels, K., Messersmith, J., & Rofcanin, Y. (2022). A Theory-based analysis of null causality between HRM practices and outcomes: Evidence from four-wave longitudinal data. *Journal of Management Studies*, <https://doi.org/10.1111/joms.12881>

Selznick, P. (1948). Foundations of the theory of organisations. *American Sociological Review*, 13(February): 25-35.

Thompson, J.D. (1967). *Organizations in Action: Social Science Bases of Administrative Theory*. New Brunswick: Transaction Publications.

Woodward, J. (1965). *Industrial Organisation: Theory and Practice*. Oxford: Oxford University Press.

### **SELECTED FURTHER READINGS**

Cummings, T. G. (Ed.). (1980). *Systems theory for Organization Development*, New York: John Wiley & Sons.

Filatotchev, I., Ireland, R. D., & Stahl, G. K. (2021). Contextualizing management research: An open systems perspective. *Journal of Management Studies*, 59(4): 1036-1056.

Harney, B. (2019). Systems theory: Forgotten legacy and future prospects. In K. Townsend, K. Cafferkey, A. McDermott, & T. Dundon (Eds.), *Elgar Introduction to Theories of Human Resources and Employment Relations*, Cheltenham: Edward Elgar, pp. 112-127.

Roundy, P. T., & Burke-Smalley, L. (2021). Leveraging entrepreneurial ecosystems as human resource systems: A theory of meta-organizational human resource management. *Human Resource Management Review*, 100863. [doi.org/10.1016/j.hrmmr.2021.100863](https://doi.org/10.1016/j.hrmmr.2021.100863)