



## Toward a theoretical framework for interprofessional education

Hugh Barr

To cite this article: Hugh Barr (2013) Toward a theoretical framework for interprofessional education, *Journal of Interprofessional Care*, 27:1, 4-9, DOI: [10.3109/13561820.2012.698328](https://doi.org/10.3109/13561820.2012.698328)

To link to this article: <https://doi.org/10.3109/13561820.2012.698328>



Published online: 02 Jul 2012.



---

Submit your article to this journal [↗](#)



---

Article views: 2154



---

Citing articles: 42 [View citing articles](#) [↗](#)

---

ARTICLE

## Toward a theoretical framework for interprofessional education

Hugh Barr

CAIPE, London, UK

---

**This paper searches for the antecedents of some of many diverse theoretical perspectives being brought to bear to understand interprofessional education (IPE) toward developing a coherent, compatible and inclusive frame of reference. Some of the sources cited are original, “leaving everything to play for” in applying them to IPE. Others apply one or more of those sources to interprofessional learning or the context in which it is delivered. Combining perspectives in this way is helpful insofar as it furthers coherence across disciplinary boundaries, but leaves the serious scholar to trace each back to its roots. Considerations of space preclude a definitive review of the ever-increasing repertoire of theoretical perspectives being introduced into IPE from anthropology education, psychology, sociology and other academic disciplines. This paper focuses on those theories which elucidate the learning process and the learning context.**

---

**Keywords:** Interprofessional education, theoretical framework, theoretical perspectives

### INTRODUCTION

Many of the early exponents of interprofessional education (IPE) approached it pragmatically: as practitioners, they eschewed theory for fear that it might intellectualize or obfuscate self-evident truth; learning together to work together seemingly needed no further explanation. Others grounded their IPE “initiatives” in a single theory from a single school of thought in a particular academic discipline: they too were practitioners but also teachers attuned to “think theory” albeit from narrow perspectives.

The perspectives chosen tended to reflect the prevalent disciplinary base at the time in the respective profession. Psychodynamic perspectives were introduced during the 1960s from psychotherapy and social work. Perspectives from social and cognitive psychology were introduced somewhat later reflecting the teachers’ and researchers’ backgrounds. Perspectives from sociology were introduced yet later as the

rising generation of academically qualified teachers were recruited to staff new and expanding medical, health and social care courses and, in effect, re-staff independent schools as they came under the wing of universities. Practitioners were no longer being appointed to teaching posts without first gaining higher degrees to complement their professional qualifications. While the medics normally obtained such degrees in their own disciplines, the nurses, allied health professionals and social workers more often obtained them in the behavioral and social sciences, most often sociology. Furthermore, universities were assigning behavioral and social scientists to teach the “contributory disciplines” on their professional courses and researchers were being “hired” from those disciplines to evaluate courses. Peer-reviewed journals – such as this – increasingly expected to find that papers submitted were set in a theoretical rationale.

Pressure was mounting in universities to enhance academic credibility in professional and IPE. So began the ongoing struggle to synthesize theory with practice, and theory with theory, to build a coherent, compatible and inclusive interprofessional frame of reference.

### COMPARING PERSPECTIVES

Securing the theoretical base for IPE depends on the readiness of the academic disciplines to compare and, where compatible, combine their perspectives in a spirit of openness, honesty and humility in much the same way as collaborative practice depends upon those same qualities between professions. Three UK initiatives gave the lead. The Interprofessional Joint Evaluation Team included a digest of theories bearing on the evidence assembled in its systematic review (Barr, Koppel, Reeves, Hammick, & Freeth, 2005). The IPE Special Interest Group edited theoretical papers which it had discussed (Colyer, Helme, & Jones, 2005). These and other sources were explored further during a series of four seminars funded by the (UK) Economic and Social Research Council (Hean, Craddock, & O’Halloran, 2009) which triggered proposals for this special issue.

## THE LEARNING PROCESS

### Adult learning

The application of adult learning principles comfortably accommodates the salient theories introduced; principles which have been adopted and adapted from professional into IPE where they chime with its emphasis on learning with, from and about each other (CAIPE, 1997).

In adult learning, each student is responsible for their own learning; in interprofessional learning that responsibility is shared between the individual and the group. The application of adult learning principles emphasizes cooperative, collaborative, reflective and social constructed learning generated during exchange between the learners (Clark, 2006, 2009). According to Kolb (1984), it is an experiential conflict-filled process out of which the development of insight, understanding and skills comes. It is a process whereby members of a community of learning negotiate the meaning of phenomena and problems in their practice which relies for its success upon the willingness and ability of the learners to enter into new experiences, reflect on them from different perspectives, create concepts that integrate their observations into logical theories and use them to make decisions and solve problems.

Reflective learning builds on the work of pioneers in adult learning since Dewey (1933, 1938) for whom it entailed continual evaluation of beliefs, assumptions and hypotheses whilst recognizing and accepting the uncertainty generated. More than analysis and thinking, it turned problematic practice into opportunities within which participants individually, in pairs or in groups, could learn, grow and develop (Jarvis, 1992). It was cyclical (Kolb, 1984), heightening understanding and self-awareness, bridging theory and practice, evaluating and cultivating identity (Tate, 2004), empowering and transformative but disorienting as it interpreted new experiences (Mezirow, 1981).

Schön (1983, 1987) distinguished between reflection-in-action (which happened immediately based on practice know-how) and reflection-on-action (which happened later taking into account guiding principles for practice). Wackerhausen (2009) and Dahlgren (2009) distinguished between first- and second-order reflection. First-order reflection relies on our own personal and professional views; it is an intentional limitation of the possible space for reflection. It is self-affirmative, the loyal servant of tradition within our professional surroundings. Second-order reflection is needed before IPE can become transformative; reflection where we step back to become aware of our own frames of reference; “meta-cognition” where we “de-centre” our learning taking into account points of views other than our own.

### Psychodynamic theory

Psychodynamic perspectives cultivate critical awareness of behavior in groups, as groups and between groups. It is grounded in Bion’s work-group mentality theory as a tool for the analysis of malfunctioning groups and organizations (Bion, 1961). His insights shaped experiential learning at

the Tavistock Institute of Human Relations and IPE at the Marylebone Centre Trust with the University of Westminster. Conferences and workshops simulated capacity to learn from experience, replicating dynamics commonly found in real organizations, but removing some of the customary defensive and protective boundaries. They focused on the unconscious experience of both the participant and the group. Participants explored boundaries between person and role, between their inner and outer worlds and between relationships and systems (Scott, 2008). Seminal though psychodynamic perspectives were in shaping an interprofessional school of thought, they are now less in evidence.

### Contact theory

Two social psychologists, McMichael in Scotland and Carpenter in England, hit upon the application of contact theory, originated by Allport (1954), to modify reciprocal attitudes and perceptions, countering prejudice and negative stereotypes between professions (Carpenter, 1995; Carpenter & Hewstone, 1996; McMichael & Gilloran, 1984), subject to conditions spelt out by Allport (1954) and augmented by Hewstone & Brown (1986). Evaluations, however, generated mixed results (Barnes, Carpenter, & Dickinson, 2000; Carpenter, 1995; Carpenter, Barnes, Dickenson, & Wooff, 2006; Carpenter & Hewstone, 1996; McMichael, Irvine, & Gilloran, 1984). The credence of contact theory to modify relationships between professional groups, therefore, remains tentative and more accurately described as the “contact hypothesis”.

### Identity theories

Critical appreciation of contact theory depends upon unraveling three identity theories each of which casts interprofessional relations in a different light with different implications for interprofessional learning.

- *Social identity theory* states that we derive our identity from our membership of social groups. Preferring a positive rather than a negative identity, we perceive our group (the in-group) more positively than other groups (the out-groups) (Ellemers, Spears, & Doos, 1999; Tajfel & Turner, 1986)\*.
- *Self-categorization theory* retains the focus on self and group identity, but in their organizational context (Turner, 1999).
- *Realistic conflict theory* proposes that intergroup attitudes and behavior reflect the objectives that each group holds. Where objectives diverge, groups will have hostile and discriminatory relationships. Conversely, where objectives are held in common, groups will behave in conciliatory ways (Brown, Condor, Mathews, Wade, & Williams, 1986; Spears, Oakes, Ellemers, & Haslam, 1997).

### Practice theory

Bourdieu’s “practice theory” rewards comparison with contact and identity theories as an alternative perspective from which to explain the processes by which entrants to

each of the health and social care professions come to hold their identities or “habitus” (Bourdieu, 1977 applied to IPE by Almas, 2009). Habitus is the product of social experience; it is acquired not inherent; it internalizes the principle of “cultural arbitrariness” learnt from “socialising agents” such as teachers (Bourdieu & Passeron, 1990). It requires an investment of “capital”, especially cultural capital, by which Bourdieu means a product of education by which the person becomes cultivated, acquires the ability to talk and move within the community where that culture is performed and appreciated, imbued with prevailing values, traditions and competence. Each profession (and each school) has its own cultural capital. Practice theory emphasizes the duration of a common educational experience to establish a collective habitus where contact theory emphasizes its quality. It challenges the effectiveness of brief and episodic interprofessional learning.

### **Situated learning**

For Lave & Wenger (1991), learning in practice is co-participation, calling on a shared repertoire of communal learning resources, accommodating complexity and facilitating change where the meaning of the activities that occur is a constantly negotiated and renegotiated interpretation of those held by all the participants. They complement this concept of situated learning with another – “community of practice” – the context in which such learning occurs. A successful community of practice is based on mutual engagement, joint enterprise and a shared repertoire of resources (Wenger, 1998).

Situated learning responds in IPE to the humanistic professions who put a premium on experience-based learning, less so perhaps to the scientific professions accustomed to teaching based on evidence from scientific investigation. Community of practice is a helpful concept in IPE unless and until it is taken to imply that the only effective interprofessional learning is in the workplace. That inference gains credence when Lave & Wenger (1991) draw analogies with apprenticeship.

## **THE LEARNING CONTEXT**

### **The sociology of the professions**

Sociological perspectives on professionalism differ. Freidson (1970, cited by Reeves, 2011) argued that professions actively engaged in a process of “closure” to secure exclusive ownership of specific areas of knowledge and expertise. Viewed thus, the case for IPE is made to further collaboration albeit overlaid with a veneer of anti-professionalism. The danger lies in citing such sources without reference to evidence of collaboration between professions and their institutions, and to other sociological sources which put professionalism in more positive light. Tawney (1921), echoed by Marshall (1950) and, indeed, Freidson (1994) in his later work, was more charitable, envisaging with astonishing foresight that the professions would be a force for stability and freedom against the threat of the encroaching bureaucracy, while Parsons (1951) saw them as

helping to maintain the fragile social order. These differing perspectives of the professions held by sociologists reflect and reinforce those held by the laity, some of whom may agree, but by no means all, with George Bernard Shaw that they are a conspiracy against them (Barr, 2007).

Sociological perspectives also shed light on the ways in which entrants are socialized into the values of their newfound profession, accompanied by the acquisition of distinctive semantics and discourses, modes of dress, demeanor and norms of behavior. Different professions have different cultures with unique ways of thinking and acting (Clarke, 1995, 1997) internalized via education (Hall, 2005) in ways with which educators need to be aware (Sharpe & Curran, 2011).

### **General systems theory**

Application of general systems theory is an antidote to the limitations of specialist disciplines in addressing complex problems. It treats wholes as more than the sum of their parts, interactions between parties as purposeful, boundaries between them as permeable, and cause and effect as interdependent not linear (Von Bertalanffy, 1971 as applied to IPE by Loxley, 1997). In IPE, it is an antidote to reductionism in the definition of problems to be addressed and specialties to respond, but accommodates both. It offers a unifying and dynamic framework within which the professions may variously relate their work in response to the needs of individuals, families, communities and the wider environment. It reaches beyond the preordained organizational, professional and political bounds of health and social care as commonly understood to enter into partnerships including a wider spectrum of professions. The biopsychosocial model (Engel, 1977) is an application of systems theory to explain the relationships between person and environment, and between psychological, sociological and biological domains in health, offering a rationale for the notion of holistic care, much loved in interprofessional circles but less well explained.

### **Organizational theory**

Organizational theory is a subset of systems theory. It includes the concept of the learning organization “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together (Senge, 1990: 3)”. Members foster a culture of enquiry within an organization which is innovative, proactive and capable of a continuous and cyclical process of change reframing information as learning (Anderson, 1992). They respect each other’s differing roles, experience and expertise, and value them as learning assets. They mobilize their collective capacity to respond to learning needs, but also recognize their limitations, bringing in college and freelance teachers when needed and valuing the distinctive qualities of extramural learning. The organization responds as a good employer to the needs and expectations of the worker as well as to those of the organization (Swieringa

& Wiedersma, 1992). It relies on double-loop learning, a flexible response which only the coordinated and committed action of a team or organization can produce within a changing environment, in contrast to single-loop learning which is intent on enhancing an individual's position and progress in competition with others (Argyris & Schön, 1974, 1984). It creates motivation to change (unfreezing) as it develops new attitudes, values, beliefs and behavior patterns (moving) before stabilizing and integrating them into the rest of the system (refreezing) (Lewin, 1952).

### Activity theory

Activity theory is another application of systems theory which, as developed by Engeström (2001) from the work of Vigotsky's (1978), seeks to understand and intervene in relations to effect change in interpersonal, interprofessional and inter-agency relations. It mediates individual relationships at micro level – subject, object and mediating artifact – as points of a triangle and systems of activity at the macro level within and between organizations or communities focusing on interaction between “community”, “rules” and “division of labor”. Joint activity, not individual activity, is the unit of analysis with instability and contradiction the motivating forces for change and development (Il'enkov, 1977) where the mediated activity changes not only the object but also the environment. Activity theory has, so far, been more discussed than implemented in IPE, but rich in potential to encapsulate multilevel personal and organizational collaboration.

### Complexity theory

Complexity theory is based on the science of complex adaptive systems which provides important concepts and tools to respond to interdependent clinical, organizational, informational, educational and professional challenges in contemporary health care. It handles complex systems which are unpredictable and often paradoxical, with many “unknowns”. Rational deduction is no longer enough. Linearity no longer holds. Multiple remedies may be more effective than troubleshooting and quick fixes (Plsek & Greenhalgh, 2001).

Professional education must lead to capability not merely competence, to the ability to adapt to change, generate new knowledge and continuously improve performance, focusing on process and avoiding rigid and prescriptive goals. Learning takes place in “the zone of complexity” between familiar and unfamiliar tasks, and familiar and unfamiliar environments (Fraser & Greenhalgh, 2001). For Cooper, the application of complexity theory in IPE promised to provide a coherent theoretical foundation to prioritize the developments of skills that promoted adaptation and survival (Cooper, Braye & Geyer, 2004; Cooper, Spencer-Dawe, & McLean, 2005). For McMurtry (2007), new insights were generated into the meaning of collective learning, consensus in teams and trust in interprofessional relationships.

## CONCLUSIONS

These and other theories informing IPE fall into two groups. There are those (mainly from education and psychology) which inform the improvement of the interprofessional learning process. There are others, more detached and more critical (mainly from sociology), which challenge professional and interprofessional orthodoxy, raising questions beyond the bounds of process.

An editorial in this Journal refers in which Reeves (2010) made the case for problematizing IPE and practice activities to de-familiarize terms, opinions, concepts and ideologies which people have come to accept as common sense. Problematization unpicks and unpacks; it encourages new viewpoints, perspectives, ideas and actions in search of new solutions. Interprofessional activists more often proselytize than problematize. Citing of theories selectively may demonstrate critical prowess, but be counterproductive unless and until they are tested against the realities of practice and other theories which may confirm or conflict.

Perspectives, ranging from the psychodynamic to the systemic, can be mutually reinforcing as the literature confirms (Hean et al., 2009). Each still has its exponents, but held in tension within an emerging and inclusive framework accommodating differences and striving toward consensus across academic disciplines as befits a movement dedicated to collaboration born of mutual respect.

### Declaration of interest

The author reports no conflict of interest. The author alone is responsible for the content and writing of the paper.

### NOTE

\*Social identity theory includes three models (Brown & Williams, 1984):

- *The Decategorization Model* which plays down distinctions between groups and their members during intergroup encounters;
- *The Common Group In-group Identity Model* which establishes a superordinate group which members of the previously competing groups can join;
- *The Salient Category Model* which maximizes the group nature of contact as opposed to the personal.

## REFERENCES

- Allport, G. (1954). *The nature of prejudice*. 25th ed., Cambridge: Perseus Books Publishing L.L.C.
- Almas, S.H. (2009). *Interprofessional education: An analysis of the introduction of a common core in curricula for selected health professions*. Saarbrücken: VDR Verlag. University of Bergen.
- Anderson, N.R. (1992). Work group innovation: state-of-the-art review. In D.M. Hosking, N.R. Anderson (Eds.), *Organisational change and innovation* (pp. 149–60). Routledge: London.
- Argyris, C., & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Boss.
- Argyris, C., & Schön, D.A. (1984). Organisational learning. In D.S. Pugh (Ed.), *Organisation theory*. 2nd edn., (pp. 352–71). Penguin, Harmondsworth.
- Barnes, D., Carpenter, J., & Dickinson, C. (2000). Interprofessional education for community mental health: Attitudes to community

- care and professional stereotypes. *Social Work Education*, 19, 565–583.
- Barr, H. (2007). Interprofessional education in the United Kingdom: 1966 to 1997. Higher Education Academy Health Sciences and Practice. Occasional Paper 9 www.health.heacademy.ac.uk
- Barr, H., Koppel, I., Reeves, S., Hammick, M., & Freeth, D. (2005). *Effective interprofessional education: Argument, assumption, and evidence*. Oxford: Blackwell.
- Bion, W.R. (1961). *Experiences in groups and other papers*. London: Tavistock Publications.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., & Passeron, J.C. (1990). *Reproduction in education, society, and culture*. London: Sage.
- Brown, R., Condor, S., Mathews, A., Wade, G., & Williams, J. (1986). Explaining intergroup differentiation in an industrial organization. *Journal of Occupational Psychology*, 59, 273–286.
- Brown, R., & Williams, J. (1984). Group identification: The same thing to all people? *Human Relations*, 37, 547–564.
- CAIPE (1997). CAIPE Interprofessional education – a definition. *CAIPE Bulletin*, 13, 19.
- Carpenter, J. (1995). Interprofessional education for medical and nursing students: Evaluation of a programme. *Medical Education*, 29(4), 265–272.
- Carpenter, J., Barnes, D., Dickenson, C., & Wooff, D. (2006). Outcomes of interprofessional education for community mental health services in England: The longitudinal evaluation of a postgraduate programme. *Journal of Interprofessional Care*, 20, 145–161.
- Carpenter, J., & Hewstone, M. (1996). Shared learning for doctors and social workers: Evaluation of a programme. *British Journal of Social Work*, 26, 239–257.
- Clark, P. (2006). What would a theory of interprofessional education look like? Some suggestions for developing a theoretical framework for teamwork training. *Journal of Interprofessional Care*, 20, 577–589.
- Clark, P. (2009). Reflecting on reflection in interprofessional education: Implications for theory and practice. *Journal of Interprofessional Care*, 23(3), 213–223.
- Clarke, P. (1995). Quality of life, values and teamwork in geriatric care. Do we communicate what we mean? *The Gerontologist*, 35(3), 402–411.
- Clarke, P. (1997). Values in healthcare professional socialisation: Implications for geriatric education in interprofessional teamwork. *The Gerontologist*, 37(4), 441–451.
- Colyer, H., Helme, M., & Jones, I. (2005). *The theory–practice relationship in interprofessional education*. Occasional Paper No. 7. London: Higher Education Academy: Health Sciences & Practice, www.health.heacademy.ac.uk.
- Cooper, H., Braye, S., & Geyer, R. (2004). Complexity and interprofessional education. *Learning in Health and Social Care*, 3(4), 179–189.
- Cooper, H., Spencer-Dawe, E., & McLean, E. (2005). Beginning the process of teamwork: Design implementation and evaluation of an inter-professional education intervention for first year undergraduate students. *Journal of Interprofessional Care*, 19, 492–508.
- Dahlgren, L. (2009). Interprofessional and problem-base learning: A marriage made in heaven? *Journal of Interprofessional Care*, 23(5), 448–454.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath.
- Dewey, J. (1938). *Logic: The theory of inquiry*. Troy: Holt, Rinehart & Winston.
- Ellemers, N., Spears, R., & Doose, J. (1999). *Social identity*. Oxford: Blackwell.
- Engel, G. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136.
- Engestrom, Y. (2001). Expansive theory at work: Towards an activity theoretical reconceptualisation. *Journal of Education and Work*, 14, 133–156.
- Fraser, S.W., & Greenhalgh, T. (2001). Coping with complexity: Education for capability. *British Medical Journal*, 323, 799–803.
- Freidson, E. (1970). *Profession of medicine: A study of the sociology of applied knowledge*. New York: Harper & Row.
- Freidson, E. (1994). *Professionalism reborn: Theory, prophecy and policy*. Cambridge: Polity Press.
- Hall, P. (2005). Interprofessional teamwork: Professional cultures as barriers. *Journal of Interprofessional Care*, 19(Supplement 1), 186–196.
- Hean, S., Craddock, D., & O'Halloran, C. (2009). Learning theories and interprofessional education: A user's guide. *Learning in Health & Social Care*, 8(4), 250–262.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the “contact hypothesis”. In M. Hewstone, R.J. Brown (Eds.), *Contact and conflict in intergroup encounters*. Oxford: Blackwell.
- Il'enkov, E. (1977). *Dialectic logic: Essays in its history and theory*. Moscow: Progress.
- Kolb, D. (1984). *Experiential learning: Experiences as the source of learning and development*. Englewood Cliffs, New Jersey: Prentice Hall.
- Jarvis, P. (1992). Reflective practice and nursing. *Nurse Education Today*, 12, 174–181.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lewin, K. (1952). *Field theory in social science*. New York: Harper Row.
- Loxley, A. (1997). *Collaboration in health and welfare: Working with difference*. London: Jessica Kingsley.
- Marshall, T. (1950). *Citizenship, social class and other essays*. Cambridge: Cambridge University Press.
- McMichael, P., & Gilloran, A. (1984). *Exchanging views: Courses in collaboration*. Edinburgh: Moray House College of Education.
- McMichael, P., Irvine, R., & Gilloran, A. (1984). *Pathways to the professions: Research report*. Edinburgh: Moray House College of Education.
- McMurtry, A. (2007). Reinterpreting interdisciplinary health teams from a complexity science perspective. *University of Albert Health Sciences Journal*, 4(1), 33–42.
- Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education*, 32(1), 3–24.
- Parsons, T. (1951). *The social system*. New York: Free Press.
- Plsek, P.E., & Greenhalgh, T. (2001). The challenge of complexity in health care. *British Medical Journal*, 323, 625–628.
- Reeves, S. (2010). The need to problematize interprofessional education and practice activities. *Journal of Interprofessional Care*, 24(4), 333–335.
- Reeves, S. (2011). Using the sociological imagination to explore the nature of interprofessional interactions and relations. In S. Kitto, J. Chesters, J. Thistethwaite, S. Reeves (Eds.), *Sociology of interprofessional health care practice: Critical reflections and concrete solutions* (pp. 9–22). New York: Nova.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schön, D. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.
- Scott, A. (2008). *Psychodynamics and IPE curriculum development*. Newcastle/IPE/ESRC seminar 27th June.
- Senge, P.M. (1990). *The fifth discipline the art and practice of the learning organization*. 1st ed. New York: Doubleday/Currency.
- Sharpe, D., & Curran, V. (2011). Professional socialisation and interprofessional education. In S. Kitto, J. Chesters, J. Thistethwaite, S. Reeves (Eds.), *Sociology of interprofessional health care practice: Critical reflections and concrete solutions* (pp. 69–85). New York: Nova.

- Spears, R., Oakes, P., Ellemers, N., & Haslam, A. (1997). *The social psychology of stereotyping and group life*. Oxford: Blackwell.
- Swieringa, J., & Wiedersma, A. (1992). *Becoming a learning organisation: Beyond the learning curve*. Wokingham: Addison-Wesley.
- Tajfel, H., & Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel, L.W. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7–24). Chicago: Nelson-Hall.
- Tate, S. (2004). Using critical reflection as a teaching tool. In S. Tate, M. Sills (Eds.), *The development of critical reflection in the health professions* (pp. 8–17). London: LTSN Health Sciences and Practice, [www.heacademyhealth.ac.uk](http://www.heacademyhealth.ac.uk).
- Tawney, R. (1921). *The acquisitive society*. New York: Harcourt Brace.
- Turner, J. (1999). Some current issues in research on social identity and self-categorisation theories. In N. Ellemers, R. Spears, B. Doosje (Eds.), *Social identity* (pp. 6–64). Oxford: Blackwell.
- Vigotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- von Bertalanffy, L. (1971). *General systems theory*. London: Allen Lane. The Penguin Press.
- Wackerhausen, S. (2009). Collaboration, professional identity and reflection across boundaries. *Journal of Interprofessional Care*, 23(5), 455–473.
- Wenger, E. (1998). *Communities of practice: learning, meaning and identity*. Cambridge: Cambridge University Press.