

A call for a multifaceted approach to language learning motivation research: Combining complexity, humanistic, and critical perspectives

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Abstract

In this paper I give an overview of recent developments in the L2 motivation field, in particular the movement away from quantitative, questionnaire-based methodologies toward smaller-scale qualitative studies incorporating concepts from complexity theory. While complexity theory provides useful concepts for exploring motivation in new ways, it has nothing to say about ethics, morality, ideology, politics, power or educational purpose. Furthermore, calls for its use come primarily from researchers from the quantitative tradition whose aim in importing this paradigm from the physical sciences appears to be to conceptualize and model motivation more accurately. The endeavor therefore remains a fundamentally positivist one. Rather than being embraced as a self-contained methodology, I argue that complexity theory should be used cautiously and prudently alongside methods grounded in other philosophical traditions. Possibilities abound, but here I suggest one possible multifaceted approach combining complexity theory, a humanistic conception of motivation, and a critical perspective.

Keywords: motivation, positivist research, reductionist research, complex systems, humanistic perspective

The Problem with Reductionism

Half a century ago, in a commentary on contemporary psychological research, Allport (1962) noted that:

We focus our attention chiefly . . . upon . . . commonalities for example, upon common traits of achievement, anxiety, extraversion . . . We spend scarcely one per cent of our research time discovering whether these common dimensions are in reality relevant to Bill's personality, and if so, how they are patterned together to compose the Billian quality of Bill. Ideally, research should explore both horizontal and vertical dimensions. (1962, p. 409)

Allport's observation could conceivably be made of research in the L2 motivation field, at least until very recently. A great deal of this research follows a well-trodden path which can be characterised as a process of data *extraction* and *abstraction*: Motivation is regarded, in positivist¹ terms, as a "measurable individual difference variable[s] implicated in second language learning" (Ushioda, 2001, p. 95); a questionnaire is designed to measure certain aspects of it; this *instrument* is distributed to a sizable, carefully screened sample of people; through the use of Likert items, the opinions, feelings and perceptions of these people are converted into numerical form; the numbers are processed to conform to a *normal* distribution; statistics are run on these numbers, and the patterns discovered in the data are used to produce – or reproduce – abstract models of motivation such as Gardner and Lambert's (1972) integrative motive or Dörnyei's (2005) ideal L2 self. All of this is reported in a tightly prescribed, stylized form of *objective* discourse.

The resulting models are cognitive maps of the motivation of the universal learner. They constitute a theoretical and methodological reductionist ideal that sociological phenomena, like their physical counterparts, can best be understood by being reduced to their component parts. The resulting models should, in turn, be reduced to a universal model. Thus, one justification for Dörnyei's L2 motivational self model (2005) is that it is more universal than Gardner's (1972) socio-educational model. Models such as these lie at an extreme end of a cline between universality and comprehensiveness, and they hold a completely different type of explanatory power to the understanding of an individual's motivation that we may, for example, gain from sitting in conversation with him/her for a couple of hours over a bottle of wine.² They represent the motivation of an average learner who corresponds to no actual

¹ By *positivist*, I mean a philosophical position that there is a reality "out there" that the objective researcher, using the right tools, can measure and represent. This is seen as naive by those who view meaning in the social and psychological realm as being socially constructed to an extent (to give a glib example: People who have been married may agree that two diametrically opposed "facts" may be equally impervious to "evidence" or "objective" mediation).

² Interestingly, a methodological procedure proposed (albeit in an off-the-cuff remark) by a pioneer of the aggregate approach to measuring motivation, and PhD supervisor of Robert Gardner, Wallace Lambert (Spolsky, 2000, p. 160).

person in the real world, in the same way that there is no actual American family with the national average of 1.86 children. The reduction of data and concepts to the point of universality inevitably ignores the idiosyncrasies of the individual. Further, it under-theorises the power of individual agency and the reflexive nature of the relationship between the individual and context. Although the quantitative approach is of undeniable value in understanding the characteristics of learners en masse, a problem with it is that it has garnered an aura of scientific objectivity sine qua non. Midgely's (2011) critique of Behaviorism touches on this issue:

Behaviourists dismissed attention to the subjective angle as an irrelevant extravagance, a sentimental luxury that ought to be renounced in the name of science. But this high opinion of its scientific status was not itself a piece of science. It was a propaganda exercise on behalf of a special moral position. The position itself was never defended in the appropriate moral terms, but always as being in some mysterious sense 'scientific'. The preference for the outside angle remains a dangerous piece of dogma, which has the most unfortunately outlasted the official demise of behaviourism When the question is about how a particular person is to be treated, then that person's own viewpoint on the matter has a quite peculiar importance. Psychological theories, such as behaviourism, which exclusively exalt the objective standpoint, cannot possibly do justice to that importance. Indeed, they exist to bypass it. (p. 60)

Like behaviorism, we can argue that motivation theory has undervalued the viewpoint of the individual and isolated itself theoretically from social context.

The alternative to a reductionist view of motivation is to adopt a comprehensive, or holistic view. For example – if we draw back from a universal view to a country-specific level – the fact that the majority of Japanese people have relatively little need for English in everyday life presumably explains, in part, the lack of enthusiasm on display in some compulsory classrooms. Yet even this is by no means a comprehensive enough explanation of motivation for the individual teacher, concerned with day-to-day management of the classroom and with the unique individuals and emergent group dynamics of the class. Ultimately, a teacher's knowledge that a student is being bullied, for example, might be more useful in explaining his low motivation than deriving a reason from the latest theory. It is perhaps no surprise that Ushioda (2009) concludes that "individual difference research³ can tell us very little about particular students sitting in our classroom, about how they are (un)motivated and why" (p. 213), and Dörnyei (2009a) claims that the individual difference paradigm "has by and large failed" (p. 4).

³ It should be noted that within individual difference research motivation has tended to be situated theoretically, along with aptitude, personality, and the like.

Challenges to reductionist conceptualizations of motivation have naturally tended to come from researchers working in the qualitative tradition. Ames (as cited in Ushioda, 2001), for example, argues that motivation ought to be defined “not in terms of observable and measurable activity, but rather in terms of what patterns of thinking and belief underlie such activity and shape students’ engagement in the learning process” (p. 96). Norton (1997), working with immigrant learners of English in Canada, also emphasizes the learner’s perspective, as well as the wider context:

Central questions in my own work are not “Is the learner motivated to learn the target language?” and “What kind of personality does the learner have?” Instead, my questions are framed as follows: “What is the learner’s investment in the target language? How is the learner’s relationship to the target language socially and historically constructed?” (p. 411)

Norton invites us to ask whether motivation is, in and of itself, necessarily a legitimate target of investigation. Ushioda (2009), in her call for a person-in-context, relational view of motivation, proposes that real people in the real world, without recourse to excessive abstraction, are the appropriate targets of research attention, emphasizing the human capability for self-reflection and the reflexive causality between learner and context. More so than Norton, Ushioda sees utility in motivation as a theoretical concept, but she views it not in positivist terms as an individual variable, but as “emergent from relations between real persons, with particular social identities, and the unfolding cultural context of activity” (p. 215).

To be fair to the quantitative paradigm, telling us about individuals, or being turned around into prescriptive strategies for motivating students, is not what correlation research is designed to do. Regardless, it seems fair to say that it has had more than its fair share of the limelight. Furthermore, the type of reductionism typical of individual difference research is now viewed as untenable even in the physical sciences, due to the emergent nature of the behavior of complex systems (see below). It is this fundamental limitation of a reductionist view that has led even long-time quantitative researchers to complexity theory.

Complexity Theory and Motivation

Recent years have seen growing interest in using complexity theory in applied linguistics (Larsen-Freeman & Cameron, 2008; Richards, Ross, & Seedhouse, 2011; Van Geert, 2007). Complexity theory originates from the mathematical and physical sciences. The rationale for its use in the social sciences is that social phenomena are sufficiently analogous to their physical counterparts for a complexity interpretation to be of explanatory utility. For exam-

ple, complex systems are *complex* in that they consist of “multiple interactions between many different components” (Rind, 1999, p. 105), each variable being a more or less significant player in an interconnected web of interacting influences. They are *nonlinear* in the sense that a perturbation to the system may cause a disproportionately significant effect (the *butterfly effect*), a proportionate effect, or a disproportionately insignificant effect. These characteristics can be seen in the L2 learner’s motivational *system* too: There are obviously multiple factors – upbringing, nature, nurture, society, the textbook, bureaucrats she has never met, the classroom, peers, the teacher, and so on – upon which motivation is potentially contingent. It is, in principle at least, impossible to arbitrarily discount any influence from consideration. In terms of linearity, my own ongoing research suggests that intercultural encounters at an early age may exert a disproportionately significant effect on motivation for some Japanese learners of English, while eight years of test-focused compulsory English classes may exert a disproportionately insignificant influence (Pigott, in press), even being deemed largely irrelevant to the motivation to learn English.

Complexity theory accounts for the fact that quantitative researchers tend to have to settle for correlation scores of 0.40, or only 16% of variance between factors (Ellis & Larsen-Freeman, 2006). However, as it is a mathematical theory, complexity theory does not supply us with a ready-made means of studying psycho-social phenomena in complexity terms. There are no established methodological templates available and traditional methods are based on investigating linear relations between isolated variables in the context of aggregate data. As Dörnyei (2012) explains:

. . . aggregated scores from a sample are often meaningless when one tries to understand the intricate dynamics of a complex system . . . the central tendency observed in a group may not be true of any particular person in the participant sample. Yet the most prestigious research methodology in the social sciences – quantitative research – is almost entirely based on group averages and thus irons out idiosyncratic details that are at the heart of understanding development in dynamic systems. (2012, p. 4)

Rather than focusing on correlations between motivational factors, a complexity approach requires us to focus on tendencies, patterns and contingencies (Larsen-Freeman & Cameron, 2008).

The researcher looking to research motivation in complexity terms is at risk of being caught in something of a catch-22 situation. Should she isolate the object of research carefully, theoretically and operationally, and conduct systematic observation of the phenomenon, she risks being accused of conducting research in a reductionist vein; if she tries to take a holistic view of the phenomena, she is likely to be accused of being vague and unsystematic as judged by accepted conven-

tions within quantitative modes of inquiry. This perhaps goes some way to explaining the paucity of convincing research using a complexity approach. In the following section I introduce two sets of guidelines that have been published with the intention of helping researchers navigate this unexplored territory.

Complexity Thought Modeling

Larsen-Freeman and Cameron's (2008) 16-step complexity thought modeling (CTM) procedure is designed to offer a systematic guide to conducting dynamic description (describing a phenomenon in complexity terms). It involves identifying the components of the system and their associated timescales, levels of social and human organization, and describing the relations between components and how the system changes over time in terms of emergence and self-organization. The aim is to make as simple a model as possible to help the researcher to understand the situation, or the extent to which it can be applied to other situations. In a recent paper (Pigott, 2013), I used CTM to investigate the motivation of four university English learners. The analysis suggested that there was certainly some utility to viewing motivation in complexity terms. In line with a complex systems view, I found that:

- An individual's motivation can only be understood as something grounded in context.
- Aspects of motivation appear to operate over multiple timescales, including those dwarfing the ones we generally associate with the classroom (task, lesson, curriculum, etc.).
- Perturbations to the motivational "system" often play a disproportionate role in affecting motivation.

While I certainly came nowhere near modeling the motivation of the participants, I found the procedure useful as a *conceptual toolkit*. My own experience, therefore, supports Mercer's (2012) conclusion that the key contribution of complexity theory may lie in its potential as an alternative way of thinking. This need not be considered disappointing. Mason (2008) reminds us that:

. . . nobody in the social sciences has been able to describe, let alone predict, what degree of mass is sufficient to be critical, when a phase transition will occur, what will be the characteristics – described in more than just general terms – of the emergent phenomena. These would be useful things to know, but even to ask after them is in some ways to misunderstand complexity. (p. 16)

More research utilizing CTM is eagerly awaited. It will be interesting to see whether it can be used as designed – as an analytic procedure rather than simply a conceptual toolkit.

Retrodictive Qualitative Modeling

Dörnyei (2012) suggests three ways to research motivation in complexity terms: (a) focusing on strong attractor-governed phenomena using traditional methods; (b) focusing on identifying typical attractor conglomerates; and (c) focusing on identifying and analyzing typical dynamic outcome patterns. The first approach is – as I understand it – a way of conducting conventional quantitative research with the understanding that it is only feasible as a consequence of complex systems' tendency to exhibit states of stability (so-called attractor states). The second approach – again, as I understand it – is a more tightly prescribed form of CTM (see above). As an example of his own *thought modeling*, Dörnyei (2009a) argues that concepts such as interest and motivation can be viewed as emergent from the interaction of lower level phenomena of *cognition*, *affect*, and *motivation*, which are phenomenologically distinct, yet impossible to separate in anything but abstract theoretical terms. This unity of the combination of factors has, he argues, been aptly recognized in everyday speech by referring to it with a single word, *interest*. To my mind, an implication of Dörnyei's observation is that there may be a case for exploring folk understandings (see Seargeant, 2012) of motivation, that is, those expressed in everyday speech. This would provide a welcome contrast to the research in which the theorizing and conceptualizing is left solely to the expert researcher.

Dörnyei's third suggestion, and the one to which he devotes most of his attention in a recent paper on complexity approaches (2012) is called retrodictive⁴ qualitative modeling (RQM). It is a procedure designed to clarify the way that "complex systems display a few well-recognizable outcomes or behavioral patterns rather than the unlimited variation that we could, in theory, anticipate in an erratic system" (pp. 5-6). Dörnyei gives the example of unpublished research being undertaken as part of the doctorate studies of one of his students in which salient student *types* were identified, and students typical of these established prototypes found. The final, key, stage of the research, in which the most salient system components and the signature dynamics (i.e., typical patterns of change) of each system are described, has yet to be completed at the time of writing.

While CTM can perhaps be seen as intimidatingly ambitious in scope, RQM appears to be more accessible. It remains, however, a tentative suggestion rather than an established procedure, and some of the procedural examples Dörnyei

⁴ As opposed to *predictive*.

gives may raise eyebrows among qualitative researchers: *Guiding* group interview participants toward certain representations of students would typically be considered a no-no in a qualitative interview (the job of establishing themes would typically belong to the researcher postinterview); detecting and defining “higher-order patterns that are *systematic within and across certain classes of complex systems* [emphasis added]” (p. 10) appears similar to the aim of conventional quantitative research; and the aim of generating abstraction “without reducing those systems to *simplistic representations* [emphasis added]” (p. 10) is problematic, since abstraction is a form of simplification. Dörnyei (2012) claims that “the ultimate goal of any research – whether qualitative or quantitative – is to go beyond a merely descriptive analysis of the particular research sample . . . and offer results that have more general relevance” (p. 9). Yet complexity theory is, according to some, primarily a descriptive theory (Morrison, 2008), and, in the qualitative realm, the value of research may take the form of usefulness, understanding, trustworthiness, resonance, plausibility, and authenticity, through means such as contextualization and the presentation of salient narratives (Sikes, 2010).

Interim Conclusion: The Need for Supplementary Perspectives

“The standards of clarity that we manage to impose in our well-lit scientific workplaces are designed to suit the preselected problems that we take in there with us, not the larger tangles from which those problems were abstracted” (Midgely, 2011, p. 194). It appears that complexity researchers will have to seek a philosophical basis to their work if they are to negotiate the relationship between the selected problem and Midgely’s larger tangle. As Morrison (2008) notes with reference to the relevance of the theory to education:

Complexity theory alone cannot provide a sufficient account of education, as education is a moral enterprise requiring moral debate and moral choices. Complexity theory does not rule out discussions of good or bad, desirable and undesirable; it simply regards them as irrelevant. (p. 29)

He also states that “its comments on autocatalysis and self-organization fit poorly to systems of schooling whose hidden curricula . . . comprise obedience, compliance, passivity and conformity, unequal power, delay, denial, rules, rituals and routines” (p. 33). One cannot help thinking that the “strong attractor” is a rather impoverished metaphor for power and the interpersonal, political and ideological connotations that it holds. How, then, can a complexity theory approach be complemented? Presumably with paradigms which have something to say about ethics and power. I will introduce two such paradigms shortly. First, an interlude.

My Own Paradigm Shift

At this juncture, I would like to present an anecdotal account of my own shift from a statistical, to a more humanistic understanding of motivation. I do this in order to give some narrative support to the technical arguments I have made in preceding sections. My MA dissertation (Pigott, 2009) was a by-the-book study in which I designed a questionnaire to measure various aspects of motivation, processed the data, and wrote up the results. Upon its completion I began to feel that the value in having completed this study did not lie in the ostensible results, but the opportunity to get to know my students better, and to be compelled to reflect carefully about motivation-related issues and the epistemological foundations of my research. At around this time I married, had children, and realized that my long-term future lay in teaching English in Japan. I was making an effort to improve my Japanese and gain more knowledge of Japan, her culture, and her people. I also began to question the conventional ideology of the English teaching industry – both the test-based lessons on the Japanese side, and the postcolonial attitudes of the native-speaker side (Phillipson, 1992). I felt that I stood on more solid ground in wishing my students well in their lives in general rather than trying, idealistically, to motivate (or manipulate) them into liking English, given the complicated political and ideological grounds underlying English in Japan (Seargeant, 2009, 2012). I began to find technical accounts of motivation (i.e., those expressed mathematically, through jargon, or through unnecessarily abstract concepts) as pointlessly abstract, and removed from my own experience of motivation as a phenomenological experience. It was as though the motivation written about in journals, while based on reality, was at the same time removed from it – extracted, filtered, pounded, diluted, standardized, roasted, and shipped out to the journals for appropriate packaging (so to speak). It is therefore no surprise that I began to find qualitative, narrative approaches to research more appealing (Bolster, 2009; Kubanyiova, 2009; Lamb, 2009; Ushioda, 2001).

In summary, my experience of motivation and what it means to motivate was, and continues to be a human experience. If I were a poet I might more effectively express the essence in poetry; if I were a writer, I might explain it through more effective use of metaphor. If I were able to do either, the results would, I feel, be more effective in communicating the essence of motivation than the ritualized prose of the academic. It is my contention that thinking, talking and theorizing motivation are best done, at least some of the time, in human terms. It is to a more detailed description of how this may be done while retaining empirical rigor to which I now turn.

Humanistic Motivation Theory

A humanistic view of motivation is most commonly associated with the work of Abraham Maslow. His hierarchy of needs (1943) was based on clinical observation as well as influences as diverse as James, Dewey, Wertheimer, Goldstein, Freud and Adler. He called this fusion or synthesis a *general-dynamic theory*. According to Maslow, human motivation can be organized hierarchically. After one's "lower" physiological needs are satisfied, one inevitably feels the need for self-actualization (a term borrowed from Kurt Goldstein):

. . . the desire for self-fulfillment, namely, the tendency . . . to become actualized in what [one] is potentially. This tendency might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming . . . A musician must make music, an artist must paint, a poet must write, if he is to be ultimately happy. What a man can be, he must be. (p. 383)

This special variety of motivation, unique to humans, "asserts itself in the study of people who are attempting to be creative and maximize their capabilities and potential" (Shunk, Pintrich, & Meece, 2007, p. 35). It is the motivation *sine qua non*, the one which subsumes all other higher forms of motivation. If the language classroom is restricting students' freedom to exercise this form of motivation, we should ask why. Varieties of this important quality of motivation manifest themselves in diverse writings on education. Rogers (1961), for example, states that the ultimate goal of the educational process was to achieve a *person-centered way of being*:

. . . something into which one grows. It is a set of values, not easy to achieve, that places emphasis on the dignity of the individual, the importance of personal choice, the significance of responsibility, the joy of creativity. It is a philosophy, built upon a foundation of the democratic way that empowers each individual. (Rogers & Freiberg, 1994, p. 123)

To theorise L2 motivation in humanistic terms we must take it out of isolation as an abstract construct and examine its place within education and life. A humanistic interpretation of motivation can also supply researchers/practitioners with a moral compass to guide the practical application of motivation theory. It is likely to necessitate critical evaluation of the commonplace idea that it is the teacher's ethical duty to motivate their students to learn, or want to learn, English. It also leads us to pay more attention to the distinction between motivation and manipulation. This leads us naturally to a critical perspective on motivation.

A Critical Perspective on Motivation and the L2 Motivation Field

A critical perspective within applied linguistics entails questioning its depiction as an impartial discipline that identifies, investigates, and offers solutions to language learning issues, in so doing enriching education. With regards to L2 motivation, it may lead us to consider whether the practical ends to which L2 motivation theory is employed tend not to be driven principally by the best intentions of students but by the epistemological and political formation of English education as a panacea which promotes compulsory English education in EFL contexts (Seargeant, 2009, 2012). It also compels us to ask whether motivational strategies offer the teacher, the school, and the society a value-neutral repository of techniques of psychological and social manipulation to be utilized towards the achievement of “higher” pedagogical, political, or ideological aims. There is a need to see how motivation fits in with education as a political site of struggle where “knowledge is often constructed by and reinforces a dominant discourse or ideology which privileges some and oppresses others” (Kubota, 1998, p. 303). We might also ask ourselves why, for example, writers on motivation do not oppose forcing students sick and tired of English into the classroom on the grounds that it is unethical (or at least counter-productive), or why their support for student autonomy does not extend to the autonomy to say “no” to English. The extent to which motivation theory and practice should be at the service of those in charge, or whether it should have its own internal moral compass is also an issue worthy of critical attention. A critical perspective might also ask whether iconoclastic ideas are in danger of being kept at bay in favor of “research by numbers” in which the philosophical, ethical, and ideological tenets upon which principled education ought to be based are side-lined (of course this is not unique to the motivation field).

We might also turn an eye to the motivator’s motivation, whether this is the motivator in the classroom, or the academic motivator. What is our justification for acting to motivate our students to learn English? To what extent do we assume we know what is best for students, or trundle along – just doing our jobs – without sparing much thought for such questions? Do we have principles upon which we base our actions as motivators? Dörnyei (2009b), for example, appears to view motivating students as doing God’s work: “I do not believe that it is accidental that the portentous spread of English coincides with the contemporary Christian revival. And neither am I surprised, therefore, that teaching English and teaching about Jesus appear to fit so comfortably together” (p. 165). Whether or not we share Dörnyei’s religious conviction, the way in which quantitative researchers in general separate their *real* selves from their researcher identities is problematic from a critical perspective,

which involves asking not just what is happening, but why, and for the purposes of whom. *Motivating* and morality are separable only in theory.

Combining Complexity, Humanistic and Critical Perspectives

Humanistic and complexity perspectives share much in common. Like a complexity perspective, it is a humanistic principle that the study of humans should be holistic (Shunk et al., 2007), and that humans supersede the sum of their parts. The tenets of Maslow's (1945) propositions governing valid theorization on motivation could feasibly come from the contemporary complexity literature:

The integrated wholeness of the organism must be one of the foundation stones of motivation theory. . . . Any motivated behaviour, either preparatory or consummatory, must be understood to be a channel through which many basic needs may be simultaneously expressed or satisfied. Typically an act has more than one motivation. (Maslow, 1945, pp. 1-2)

Where the theories diverge is in terms of research focus and the underlying reasons for undertaking it in the first place. Unlike a complexity approach, the choice of what to study within a humanistic/critical approach is determined by the problem's importance to the people most intimately connected to the phenomena; it is therefore preferable "to study an important problem with a less-refined methodology than a trivial problem with a complex methodology" (Shunk et al., 2007, p. 35).

Complexity and humanistic/critical approaches also differ in the potential resources they can draw on. Complexity theory is a self-contained theory, mathematical in the physical sciences, by necessity metaphorical in the social sciences. By contrast, humanistic/critical perspectives draw on the whole gamut of human experience. The humanities have, throughout history, been the main arena for a discussion of the human condition, and are essential in understanding how language learners are acted upon by, and in turn shape institutions, society and culture.

Perhaps a multifaceted approach to L2 motivation could take the following form. First, an analysis is performed in complexity terms. Next, the researcher asks, from a humanistic standpoint, how the motivation relates to a path to self-actualization. If, the motivation is instead aligned with the selfish interests of others, or the amoral runnings of a bureaucracy, a consequent critical perspective will prove especially revealing. The researcher can ask who holds power over the learner's motivation, what we can say about this power, whether it is openly wielded and submitted to, or whether it is subtly subversive. The researcher can then ask how such findings relate to convention and folk-understanding. Starting with a complexity view – or even with a reductionist view, research could travel through

these three or four stages from a reductionist to holistic understanding, the product being a commentary on motivation as a multifaceted, socially, culturally and historically contextualized concept/phenomenon (see Figure 1).

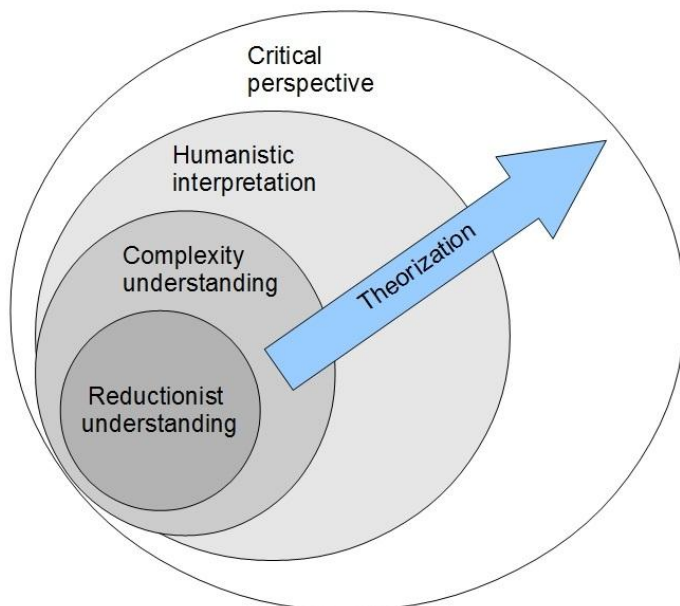


Figure 1 A multifaceted approach to L2 motivation research

I am in no way suggesting that this would provide an *optimum* way of researching motivation, but I am confident that the process would be rewarding. Incidentally there is no reason why the resulting commentary might not make use of more expressive language than usual. Ziman (as cited in Gaddis, 2002) reminds us that insights in the physical sciences often arise from realizations such as “the random configuration of the long chain of atoms in a polymer module is ‘like’ the motion of a drunkard across a village green” (p. 2); in the humanistic field, Rogers (1961) writes (in language reminiscent of complexity terminology) that a person is “a fluid process, not a fixed and static entity; a flowing river of change, not a block of solid material; a continually changing constellation of potentialities, not a fixed quantity of traits” (p. 122). Metaphor can be used to crystalize meaning rather than obfuscate it. Likewise, principled use of narrative is not necessarily inferior to numbers simply because it is nonnumerical (a circular argument to start with). As Gaddis (2002) wryly observes on a craft which is conducted through narrative, “historians are . . . in much less demand than social scientists when it comes to mak-

ing recommendations for future policy. We have the consolation in contrast to them, though, of more often getting things right" (p. 58).

Theory, McDonough (2002) suggests, must meet the criterion test of applicability, "an ability to relate to real situations" (p. 24). A multifaceted approach would offer an alternative to generalizable predictions about the connection between learning behavior, motivation and pedagogical intervention (Ushioda, 2012), seeing it instead in terms of the need for flexibility, engagement and understanding – what Prabhu (1990) refers to as the teacher's *sense of plausibility*. It is likely to challenge convention while at the same time accepting that we teach and learn in contexts that are inherently contradictory and in which meaning, right and wrong are likely to depend, at least to a degree, on one's standpoint.

In closing, it is worth mentioning that there are more than the three paradigms which hold potential in understanding and theorizing motivation. Ushioda (2009), for example, suggests the as yet undiscovered potential of Vygotskian sociocultural theory (Lantolf & Thorne, 2006), ecological perspectives (Van Lier, 2004), theories of situated learning and communities of practice (Toohey, 2000), and sociocognitive approaches (Atkinson, 2002). Diversity appears to be key in understanding such a diverse phenomenon as motivation.

Conclusion

More than a decade ago, Dörnyei (2001) wrote (playing devil's advocate) that "*there is no such thing as 'motivation.'* . . . [It is] an abstract, hypothetical concept that we use to explain why people think and behave as they do [emphasis original]" (p. 1). But of course, motivation is more than a hypothetical concept: It is a phenomenological experience. The idea that it is only a theoretical construct could only be a reductionist projection onto reality. As Maslow (1966) put it, "I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail" (p. 15).

In complexity theory we have a new-fangled tool that nobody really understands how to use yet. The point is not whether motivation can be seen as a complex system (quite clearly it can), but how it can best be utilized. This involves recognizing its limitations as well as its advantages. While it is not much of a guide to ethical motivation theory and practice, complexity theory might, for example, act as a bridge between the quantitative and qualitative research communities, and it also supplies an internally consistent conceptual framework for the description of motivation. A humanistic view, on the other hand, reminds us that there is a certain type of motivation which deserves to be cherished and nurtured – what Hesse (2000) described as a striving towards one's own destiny, Maslow (1943) as self-actualization, and Rogers (1961) as self-discovered or self-appropriated learn-

ing. Finally, a critical perspective might encourage us to question what contemporary compulsory English education is doing to uphold learners' rights to exercise their higher types of motivation, and how these rights are supported or suppressed by institutional, political or ideological influences.

Complexity theory, humanistic principles, and a critical perspective offer three lenses through which to observe motivation. Each has its own particular coloration, imperfections, and blind spots. Together, they offer a useful combination of conceptual, ethical, and antidogmatic lenses through which to view motivation anew.

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