Introduction: Interdisciplinary Concepts and their Political Significance

ERNST MÜLLER

Zentrum für Literatur- und Kulturforschung Berlin
(Center for Literary and Cultural Research, Berlin)

ABSTRACT

This essay introduces a panel of four studies of concepts: *survival*, *generation*, *mutation*, and *reflex*; concepts which circulate among different disciplines. The introduction addresses the problems of disciplinary lexica of conceptual history which have been completed in Germany in recent years; at the same time it questions the boundaries between political-social language (as represented by the Cambridge school in the English-speaking world and by Koselleck in the German) and concepts in natural sciences. The methodological problems examined in the process include issues of knowledge and discipline and interdisciplinarity, as well as of metaphorology and translation, and investigates their relation to the logic of the political.

KEYWORDS

history of concepts, interdisciplinarity, metaphorology, translation

All the contributions to this panel have arisen out of a project on interdisciplinary conceptual history at the *Zentrum für Literatur und Kulturforschung* (Centre for Literature and Cultural Research) in Berlin.¹ The adjective “interdisciplinary” refers here both to the method and also, and especially, to the concepts in question. In this introduction I would like to address some of the theoretical problems and premises that interdisciplinary conceptual history encounters. These will then become clearer in the following empirical articles, which study the semantic history of the terms *survival*, *generation*, *mutation*, and *reflex*. Since the contributions from our Centre circle around the theme of interdisciplinarity and the political, I will discuss these briefly at the end of this introduction.

1. See <http://www.zfl.gwz-berlin.de/forschung/kulturgeschichte-des-wissens/begriffsgeschichte/> (7 June 2011). On the method of interdisciplinary history of the concept, see also Ernst Müller, ed., *Begriffsgeschichte im Umbruch?* Archiv für Begriffsgeschichte, Sonderheft Jahrgang 2004 (Hamburg: Meiner Verlag, 2005).

The starting point for this project was that at least the great German projects of the *History of Concepts* (for example, the *Historical Dictionary of Philosophy*, the dictionaries of rhetoric, of aesthetics, and so on) deal with their terms more or less only from the internal viewpoint of their respective disciplines.² Thus Koselleck's *Geschichtliche Grundbegriffe* addresses the sphere of political and social languages, but not the field of knowledge and sciences.

What we find missing, however, is not so much historical studies of the semantics of individual disciplines, but rather a methodical frame for research, which we claim should be strictly oriented along the lines of an interdisciplinary perspective. Admittedly, the interdisciplinary character of conceptual history has been noted and addressed time and again,³ but it seems that interdisciplinarity has been less examined as linguistic transfer between disciplines than philosophically presupposed in a universal sense. This applies already to Lovejoy, who in fact did have various disciplines and cultures in mind, but his "unit ideas" always seem to exist, as it were, platonically and prelinguistically.

The second diagnosis that sparked our project was that while reflection on historical semantics has long been established as an important domain of research in the humanities, it has widely remained a desideratum within the natural sciences. This narrowing down of the object field applies both to the history of ideas in the Anglo-American tradition and to the German "History of Ideas." Both approaches began by focusing on philosophy and political communication or on political key concepts. While in the Anglo-American domain (for instance, with Quentin Skinner and John G. A. Pocock) these two fields of philosophy and political thought were thought of in their mutual context (as in the studies on Hobbes), in Germany, Koselleck's project on political-social concepts and the philosophical terminological-history lexica proceeded independently of each other.

Concerning the choice of lemmata, we concentrate on the early modern and modern history of those concepts that play a central role in recent cross-disciplinary discourses and controversies. We are therefore mainly interested in concepts that, in their circulation between different disciplines, display different semantics in each discipline. Although it is not always the case, there is usually a certain expression or term that is the conceptual medium of such transfer. It may be worth pointing out that this approach does not differentiate

2. Joachim Ritter and Karlfried Gründer, eds., *Historisches Wörterbuch der Philosophie* (13 vols., Basel: Schwabe, 1971–2007); Gert Ueding, ed., *Historisches Wörterbuch der Rhetorik* (Tübingen, 1992–); Karlheinz Barck, Martin Fontius, and Dieter Schlenstedt, *Ästhetische Grundbegriffe* (7 vols., Stuttgart und Weimar: Metzler, 2000–2005).

3. For example Gunter Scholtz, ed., *Die Interdisziplinarität der Begriffsgeschichte*, Archiv für Begriffsgeschichte, Sonderheft Jahrgang 2000 (Hamburg: Meiner Verlag, 2000); Imeline Veit-Brause, "The Interdisciplinarity of History of Concepts—A Bridge between Disciplines," *History of Concepts Newsletters* 6 (2003): 8–13.

methodologically between concepts with particular meanings and so-called universal or philosophical concepts. It engages with concepts such as *heredity/inheritance/heritage, emotion, generation, projection, space, probability, volition, entropy, code, information, or medium*.⁴ We are also interested in concepts that have been widely defined by individual disciplines, but have nevertheless become cultural key concepts, such as *infection, analog/digital, catalysis, race, the unconscious, and virus*.

Indeed many key concepts of modern scientific disciplines are not restricted to their functions within a single discipline, nor can their semantics be defined by means of internal disciplinary categories. On the contrary, the semantics of scientific key concepts are extensively present in transdisciplinary discursive orders. In the process of defining them, the circumstances of their creation are naturally forgotten, and this in its turn almost necessarily leads to profound misunderstandings in the dialogue between disciplines. It is this semantic surplus and the resulting highly controversial status and vague character of such concepts that render them productive for the generation of theoretical and practical knowledge. Basic concepts of science often have no clear or generally accepted meaning; they are constitutively indistinct. It is this very vagueness that gives them their productivity, because it is the source of new opportunities of semantic development. The ambiguity or contestability, therefore, is not a feature only of historical or sociological key concepts (as Koselleck characterized them),⁵ but is equally constitutive for basic concepts of science. Indeed, already in the 1930s Ludwik Fleck, one of the first historians of science, saw similarities between political and scientific language:

This social character inherent in the very nature of scientific activity is not without its substantive consequences. Words which formerly were simple terms become slogans; sentences which once were simple statements become calls to battle. This completely alters their socio-cognitive value. They no

4. In the context of the ZfL project, several works on interdisciplinary concepts have already been produced, for example Ernst Müller and Falko Schmieder, eds., *Begriffsgeschichte der Naturwissenschaften: Zur historischen und kulturellen Dimension naturwissenschaftlicher Konzepte* (Berlin: Walter de Gruyter, 2008); Ernst Müller, "Transferences in the concept of information," in *Interdisziplinierung? Zum Wissenstransfer zwischen den Geistes-, Sozial- und Technowissenschaften*, Jutta Weber, ed. (Bielefeld: Transcript Verlag, 2010), 143–66; Sigrid Weigel, *Genea-Logik: Generation, Tradition und Evolution zwischen Kultur- und Naturwissenschaften* (Munich: Fink, 2006); Ohad Parnes, Ulrike Vedder, and Stephan Willer, *Das Konzept der Generation: Eine Wissenschafts- und Kulturgeschichte* (Frankfurt a.M.: Suhrkamp, 2008).

5. "Ein Wort kann eindeutig werden, weil es mehrdeutig ist. Ein Begriff dagegen muß vieldeutig bleiben, um Begriff sein zu können" (Reinhart Koselleck, "Einleitung," in *Geschichtliche Grundbegriffe: Historisches Lexikon zur politisch-sozialen Sprache in Deutschland*, Otto Brunner, Werner Conze, and Reinhart Koselleck, eds., vol. 1 [Stuttgart: Klett-Cotta], xxii.

longer influence the mind through their logical meaning—indeed, they often act against it—but rather they acquire a magical power and exert a mental influence simply by being used. As an example, one might consider the effect of terms such as “materialism” or “atheism”, which in some countries at once discredit their proponents but in others function as essential passwords for acceptability. This magical power of slogans, with “vitalism” in biology, “specificity” in immunology, and “bacterial transformation” in bacteriology, clearly extends to the very depth of specialist research. Whenever such a term is found in a scientific text, it is not examined logically, but immediately makes either enemies or friends.⁶

It is possible, therefore, that methods of conceptual history that have been developed with regard to the fields of philosophy, philology, and historical science can be applied also to scientific concepts. In relation to the historicity of their semantics, the semantics of the natural sciences is not to be treated any differently than linguistic objects of the humanities. Thus the methodological dualism of the natural sciences and the humanities should be circumvented. Historical semantics assumes that it is only through the discourse itself that the objects that it discusses are constructed—and on a level that the relevant disciplines reflect upon only inadequately. It does not view the concepts as subjects, but rather observes and reflects upon how meanings are constituted. Such a perspective is defamiliarizing, so to speak, in the sense that it observes how the academic fields configure their objects and concepts within the medium of a historically and culturally defined language. This adoption of a cultural-historical perspective is at the same time absolutely constructive, in that such a perspective transcends the conceptual-semantic self-image of an epoch. Connections, fields, series, diffusion, and traces are revealed which need not coincide with the same terms as generated by the history of ideas.

The interdisciplinary and intercultural perspective of our project, however, makes it necessary to revise the traditional methods of the history of concepts, which have long been dominated by the approaches and the more or less idealistic premises of philological and philosophical hermeneutics.

Like the conceptual history of academic disciplines, interdisciplinary conceptual history also has a historical index, which justifies continuing the philosophical conceptual history from an interdisciplinary perspective. Whereas philosophy long occupied the role of guiding universal discourse, by the second half of the nineteenth century at the latest, an increased disciplinary division of labor was taking place: philosophy withdrew from its position of unifying the *universitas litterarum*, while the methodological boundary be-

6. Ludwik Fleck, *Genesis and Development of a Scientific Fact* (Chicago: University of Chicago Press, 1981), 43. See also Ekkehard Felder, *Semantische Kämpfe: Macht und Sprache in den Wissenschaften* (Berlin: De Gruyter, 2006).

tween the natural sciences and the humanities became more pronounced, and the “positive” (natural) sciences took on a weightier role. At the same time, the intellectual world disintegrated more and more, as its boundaries were consolidated between different types of rationality, which can then hardly be synthesized any longer within a philosophical system. In the history of concepts this is evident in the fact that one and the same term can now be used to denote different phenomena in various, sometimes isolated, academic disciplines. Concepts and connotations are directly taken over from the academic fields into a universal philosophical discourse (for instance, in Darwinism), or conversely, venerable philosophical concepts gain very specific meanings in the individual academic fields. And so, as every practitioner of conceptual history in Germany can observe, the traditional philosophical conceptual history can best be applied to the period between 1750 and 1840, thus to exactly the time that Koselleck referred to as the “saddle period” (*Sattelzeit*). After this, we assume, only a perspective with an interdisciplinary orientation can figure out the history of the essential key concepts.⁷ If philosophy no longer understands itself as a universalist discourse, but views the semantic differences between the disciplines as an important problem, it can of course be a medium for a synthesizing reflection; the same holds true for cultural studies.

When we reflect on an interdisciplinary conceptual history, which includes scientific concepts, we work our way out of the legacy of the separation of human and natural sciences and the problem of the so-called two cultures that are jointly responsible for the traditional exclusion of scientific concepts from historical semantics.⁸ This separation has already been called into question once, in the context of the “crisis of the sciences” in the 1920s and 1930s.⁹ Above all, Gaston Bachelard, Georges Canguilhem, and Ludwik Fleck, considered today the founding figures of historical epistemology, showed that the development of science is a process that cannot be conceptualized independently of the technical, social, cultural, and political conditions in which it took place. Particular attention was paid to the importance of techniques and language for

7. Christian Geulen has recently put forward hypotheses about the history of concepts mainly after the period Koselleck has studied. Compare Christian Geulen, “Plädoyer für eine Geschichte der Grundbegriffe des 20. Jahrhunderts,” *Zeithistorische Forschungen/Studies in Contemporary History* 7 (2010), online edition, <http://www.zeithistorische-forschungen.de/site/40208995/Default.aspx> (accessed October 10, 2011).

8. P.C. Snow, *The Two Cultures: And a Second Look* (Cambridge: Cambridge University Press, 1964).

9. There was widespread discourse about the crisis of reality, (natural) sciences, or historicism. Compare particularly, but not only, Edmund Husserl, *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie: Eine Einleitung in die phänomenologische Philosophie* (1936), Elisabeth Ströker, ed. (Hamburg: Felix Meiner, 1982).

the development of science; experimental techniques have been recognized as important for the production of new knowledge. The object of science is not nature as given, but the human manufacturing activity, our intervening in and transformation of nature, which are inescapably penetrated by interests and objectives. Technology and language are not mere epiphenomena of the scientific research process; rather, they proved to have been of constitutive importance for our knowledge of nature. Only through linguistic construction work do the so-called scientific facts acquire their meaning for us as objects of research. As previously stated with reference to the terms of the humanities and social sciences, many scientific concepts too are characterized by surplus dimensions of meaning in which antecedent experiences, cultural values, and political interests are reflected.

An important impetus for this opening up of conceptual history to interdisciplinarity has come from current studies on science and technology. After a phase in which the Great Narratives were discredited, giving way to a focus on microhistorical and local investigations, it now appears that the history of concepts is the medium of choice in which far-reaching connections can be presented. A further starting point for the history of concepts can be found in cross-border theories, which refer to the new quality of overlap between nature and culture, and which are expressed by such concepts as “hybrid,” “epistemological thing,” and “third culture,” or within the nature-scripture discourse.¹⁰ Without any direct reference to the history of concepts, attention has been focused more intensely on these concepts that touch the borders between nature, culture, and society. The genesis of such hybrid constructions can be investigated by the history of concepts.

History of concepts, as we intend it, necessarily includes rhetoric, discourse theory, epistemology, arts, and iconic semantics. I would like to emphasize five methodological problems of this broad field.

The Concept of *Knowledge*

In line with the more recent histories of culture and science, we are using a broader concept of *knowledge*. On the one hand, *knowledge* is used to describe epistemological phenomena that precede the differentiation of academic disciplines, but on the other hand, it also refers to the knowledge inventory on the level of the specialist discourse and specified forms of speech. In the latter,

10. Bruno Latour, *We Have Never Been Modern* (Cambridge, Mass.: Harvard University Press, 1993); Hans-Jörg Rheinberger, *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube* (Stanford: Stanford University Press, 1997); John Brockman, *The Third Culture* (New York: Simon & Schuster, 1996).

transfers between different fields occur at all levels of the formation of *knowledge*—science and poetry, epistemology and fiction all have an equal share in knowledge and its configuration. Foucault's concept of *knowledge* emphasizes the catalytic function of concepts in the formation of epistemologies, which in turn means that conceptual history becomes an important methodological instrument for investigating these epistemologies. For this reason it is precisely those conceptual fields whose semantics are productive function of “new knowledge” that are of interest to history of science and science studies. (Such conceptions often go unacknowledged by conceptual history, or are obscured by a historically misleading concept of *mind*.) An example from the life sciences of the early twentieth century is the concept of *specificity*, the lock-and-key metaphor that extends from molecules through to species; this concept was transferred from organic chemistry to immunology before later being displaced by that of *information*.¹¹

On Disciplines and Interdisciplinarity

An interdisciplinary conceptual history naturally requires a clarification of what is meant by “discipline” and “interdisciplinary.” The interdisciplinary perspective requires an investigation of the organization of knowledge and academic fields in the historical context. At the same time, disciplinarity and interdisciplinarity are to be understood as umbrella terms for phenomena that themselves can only be conceived historically and should not be projected back unto history. The consolidation of the disciplines, especially by university teaching, first occurred in the nineteenth century, even if before this there was a comparable organizational principle of early modern knowledge—for instance, in the system of lower and higher faculties (theology, jurisprudence, medicine) or in the differentiation between natural history (*Naturgeschichte*) and physics (*Naturlehre*). What Newton did was by the eighteenth century already called physics; it was, however, still considered part of philosophy.¹² Thus the issue of discipline is quite different from what it became in the nine-

11. For detailed demonstration see Lily E. Kay, *Who Wrote the Book of Life? A History of the Genetic Code* (Stanford: Stanford University Press, 2000).

12. See Rudolf Stichweh, *Zur Entstehung des modernen Systems wissenschaftlicher Disziplinen—Physik in Deutschland 1740–1890* (Frankfurt a.M.: Suhrkamp 1984). See also Hans Schimank, “Die Wandlung des Begriffs ‘Physik’ während der ersten Hälfte des 18. Jahrhunderts,” in *Wissenschaft, Wirtschaft und Technik: Studien zur Geschichte: Wilhelm Treue zum 60. Geburtstag*, Karl-Heinz Manegold, ed. (Munich: Bruckmann, 1969), 454–68, as well as Heinz-Elmar Tenorth, ed., *Geschichte der Universität Unter den Linden 1810–2010: Genese der Disziplinen: Die Konstitution der Universität* (Berlin: Akademie Verlag, 2010).

teenth and twentieth centuries. Lavoisier, for instance, the founder of modern chemistry, still described his work as “philosophical.”

The word *interdisciplinarity* is itself relatively young; it only began to spread after the end of the sixties. The problem, however, has been known and discussed for longer under different concepts. Some cultural differentiations do not coincide with the compartmentalization between the natural sciences and humanities, sciences and fine arts, politics, law, etc. Still, they are included within the borders of knowledge and sciences, which are mostly—though not always institutionally—reinforced. Finally, we have to distinguish between concepts that belong to the theoretical basis of a discipline (e.g. *guilt* as a legal concept) or serve to subject other fields to their logic (thus one speaks of *politicization*, *juridification*, *scientification*, *sacralization*, *aestheticization*, etc.).

Metaphorology

The underlying thesis of our approach is that the formation of the disciplines of modern knowledge and their specific semantics must from the start be understood as resulting from boundary-crossing processes of semantic transfers, metaphorizations, and shifts of meaning between the semantics of disciplines, as well as between ordinary language and metaphorical and terminologically defined semantics.

Metaphors develop their own dynamic, which cannot be completely controlled. Metaphors cannot be fully broken down into concepts. Basic concepts such as *gene*, *atom*, *cell*, or *information* exhibit incorrigible metaphorical surpluses and defy rigid definition. Their uncontrollable momentum is especially evident when one examines the circulation of metaphors through the various fields of knowledge. It can then be seen that the metaphor, depending on its context, opens up ever new semantic fields. This observation has far-reaching consequences: it compels a revision of those theories that understand metaphor as the transfer of a supposedly fixed meaning to a new context. Such perspectives should be abandoned in favor of an understanding of metaphor as an indefinable textual element, consisting of many layers of meaning. The metaphor then appears as an intersection and interface in a network of discourses, and as a stimulus that allows the mutual feedback of several different discourses. Interest should therefore be steered towards those practices that highlight the scientific concept's blind spots and inconsistencies, or instances where its impure origins of the concept have been forgotten. In the case of *mutation*, as Jörg Richter's contribution will show, it is not easy to clarify whether its use in various disciplines followed from its use as biological concept, or the biological concept itself is a result of its use in other spheres.

Translations between Languages

An interdisciplinary conceptual history is enormously complicated when it, unavoidably, crosses the horizon of a single national language. The leading academic languages themselves have a historic dimension—mainly from Latin and Greek, via changing epicenters of national languages, to English as the new *lingua franca*. The challenge of an international perspective on the interdisciplinarity of concepts is even greater, for it is exactly through the study of the history of academic and scientific concepts and terms that the historical, cultural, and linguistic conditions for their development become more apparent, and thereby open up for discussion. In the process of transfer between academic disciplines and national languages, it is not unusual to find a double change in register: a comparative perspective frequently yields the finding that one and the same term occurs in other disciplines in different national languages (as for example with the German concepts *Abstammung*, *Genealogie*, and *Deszendenz*, as compared to the English *filiation/descent* and the French *filiation/lignage*; such is also the case with the German concept of *Kraft* (or Italian *forza*), compared with the English pair of *force* and *power*). There are significant national language differences in scientific terminology. Various academic fields in Germany, for example, have since the beginning of the nineteenth century constituted their research object with the untranslatable prefix “ur” (for example *Urgeschichte* and *Urchristentum*). Such problems, as Koselleck demonstrated,¹³ can be approached only by not translating word for word, but rather compiling whole comparative word-fields. From an interdisciplinary perspective, a further question takes on special relevance here: a defining feature of German academia is the division between natural sciences and *Geisteswissenschaften*, approximating, but not completely corresponding to, the humanities. What impact does this have when core concepts are exchanged with cultures in which other classifications obtain, for instance the French “sciences sociales et humaines,” or “sciences and humanities” in the Anglo-American sphere? As with the disciplinary status of concepts, their basis in a specific national language is associated with misunderstandings and the problem of (un)translatability. From an explicitly antiuniversalistic perspective, the French philosopher Barbara Cassin establishes in her *Vocabulaire européen des philosophies* that key philosophical concepts are ultimately untranslatable, owing to the context of their particular languages and traditions.¹⁴ Every contact with multilingualism is confronted with both political and cultural differences.

13. Reinhart Koselleck, “Vorwort,” in *Geschichtliche Grundbegriffe*, vol. 7, viii; English translation by Michaela Richter, *Contributions to the History of Concepts* vol. 6, no. 1: 29–34.

14. Barbara Cassin, ed., *Vocabulaire européen des philosophies: Dictionnaire des intraduisibles* (Paris: Le Seuil/Le Robert, 2004).

Interdisciplinarity and the Logic of Politics

A concept-historical research approach that goes beyond the core concepts to focus on the generation of knowledge is also qualified to bridge the dichotomy between the thematization of concepts as used in everyday language—which to date has referred more to political-social language—and a history of terminology whose paragon is the German *Historisches Wörterbuch der Philosophie* (*Historical Dictionary of Philosophy*).¹⁵ This latter approach has been much criticized for its tendency to “take summit tours” (*Gipfelwanderung*), in the sense of only considering canonized thinkers.¹⁶ In modern societies, not only does the power to define derive from the explicit political and social use of language, but it is essentially also established through the discursive practices of knowledge; the power of definition has become an essential part of politics. And in a Foucauldian sense, life (along with its concepts) and politics fuse together in biopolitics. Stefan Willer shows this in his contribution on *generation*. Political keywords such as *knowledge society* or *information society* indicate that the paradigm of politics can no longer be described—as was perhaps the case in classical modernity—in terms of autonomy, but rather in terms of a borrowed “scientific” legitimation. The boundaries between the scientific and political fields are constantly transgressed in the historical development of concepts such as *entropy*, *cells*, or *information*. Thus the German science and technology historian Eva Johach has shown that in the nineteenth century the concept of the *cell* was not only transferred to social and political constellations, but also, conversely, political perspectives—for instance in the work of medical scientist and physiologist Rudolf Virchow—were projected onto the biological concept of *cell*.¹⁷ Perhaps it is the vague, indefinable character of interdisciplinary concepts that allows political concepts to tie into such interdisciplinary concepts in a strategic sense. At the same time it is also political discourse which restricts the vagueness and ambiguity of such concepts.¹⁸ Generally a science detached from politics is just as much a fiction as a scientific foundation for politics. Three contributions in this issue discuss translation between the field of politics and sociology, on the one hand, and natural sciences on the

15. Cf. note 2 above.

16. Rolf Reichardt speaks of “kanonisierte Höhenkammliteratur” and “ideengeschichtliche Gipfelwanderung”: Rolf Reichardt, “Allgemeine Bibliographie: Einleitung,” in *Handbuch politisch-sozialer Grundbegriffe in Frankreich 1680–1820*, Rolf Reichardt, Eberhard Schmitt, Hans-Günter Funke, and Hans-Jürgen Lüsebrink, eds. (Munich: Oldenbourg, 1986), 58–59.

17. Eva Johach, *Krebszelle und Zellenstaat: Zur medizinischen und politischen Metaphorik in Rudolf Virchows Zellulärpathologie* (Freiburg: Rombach Verlag, 2009).

18. Ralf Konersmann, “Historische Semantik und Politik,” in *Kulturelle Tatsachen* (Frankfurt a.M.: Suhrkamp, 2006), 323–46.

other: Stefan Willer using the example of *generation*, Falko Schmieder that of *survival of the fittest*, and Jörg Richter that of *mutation*.

Scientific concepts can arise in political contexts and their genesis can be connected to political strategies. They can be politicized *post factum* when politics or politicians enlist the reputation of science to legitimize their decisions. This can lead to a loss of the democratic process of politics, for instance when it is then claimed that there is no alternative to a decision since it has been scientifically justified (as with concepts of demography, to which, incidentally, the Zentrum für Literatur- und Kulturforschung also dedicated a project). Finally, politics and political language, consciously or unconsciously, adopt scientific concepts or figures (for instance, from the medical field). All of this indicates that a political analysis proceeds not only from traditional and explicitly political concepts (*freedom, nation, state*, etc.), but rather must also include such hybrid concept forms as those with which our panel engages.