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Is blending a godsend or a curse? An attempt at the theory's assessment from the cognitive linguistic perspective

**Teoria integracji pojęciowej – dar niebios czy przekleństwo?
Próba ewaluacji z perspektywy językoznawstwa kognitywnego**

Abstrakt

Niniejszy artykuł jest próbą ewaluacji, stworzonej przez Gillesa Fauconniera oraz Marka Turnera (2002), teorii integracji pojęciowej, zwanej również teorią amalgamatów. Koncepcja ta wykorzystywana jest w badaniach z zakresu wielu dyscyplin naukowych, m.in.: językoznawstwa, literaturoznawstwa i prawa. Obok licznych zwolenników teorii amalgamatów istnieje spore grono krytyków, zarzucających jej m.in. zbyt uogólnianie zasad czy też zbyt szerokie zastosowanie w znacznie różniących się od siebie dziedzinach. W artykule pragnę zaprezentować najważniejsze głosy krytyczne wysuwane wobec teorii amalgamatów oraz zastosowaną w nich kontrargumentację. Ponadto chciałabym także przedstawić możliwe kierunki rozwoju dla omawianej koncepcji z perspektywy językoznawstwa kognitywnego oraz zaprezentować kilka propozycji jej udoskonalenia.

Słowa kluczowe: teoria integracji pojęciowej, teoria amalgamatów, przestrzeń mentalna, językoznawstwo kognitywne

Abstract

This paper is an attempt to critically evaluate and assess conceptual integration theory, aka blending. Conceptual integration has been a popular paradigm with many linguists and scholars of different academic orientation for many years since its creation by Fauconnier and Turner (2002). It has been used to validate research in literature, language and law, to mention just a few. However, together with its proponents there are numerous voices of critique that accuse blending of being underspecified and overarching, among others. I would like to present the critical voices pertaining to conceptual integration and provide counter argumentation, where possible. Further, I would like to suggest certain ways of improvement for the theory, as well as put forward its possible direction of progress from the cognitive linguistic perspective.

Key words: conceptual integration theory, blending, mental spaces, cognitive linguistics

Blending basics

Conceptual integration theory, which I will call CIT for short, was introduced by Gilles Fauconnier and Mark Turner, and it is also commonly referred to as conceptual blending or simply blending. The theory rests upon the notion of a mental space derived from Fauconnier's early mental spaces theory (Fauconnier 1997). According to Fauconnier, mental spaces operate as "constructs distinct from linguistic structures but built up in any discourse according to guidelines provided by the linguistic expressions" (Fauconnier 1997: 16). In addition to that, Fauconnier considers mental spaces as "partial structures that proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures" (Fauconnier 1997: 11, 17). Further, he initially refers to mental spaces as 'structured incremental sets' that allow for certain relations to exist inbetween (Fauconnier 1994: 16), however this mathematical take on mental spaces as sets of data is later dropped in favour of the view that mental spaces are small conceptual packets of information as well as mental packages, mental arrays or stereotypical bundles of ideas (Fauconnier and Turner 2002: 102; Turner 2014: 4). Basically, we can think of mental spaces as particular cognitive fields of association which become activated by means of linguistic units. They can even be said to constitute a linguistic theoretical concept on par with domains or frames (Turner 2014: 4). Moreover, in CIT the similarities, or correspondences that arise between miscellaneous concepts, are referred to as mappings between different mental spaces which can be defined as follows: "[...] correspondence[s] between two sets that assign to each element in the first a counterpart in the second" (Fauconnier 1997: 1). Thus, it is possible to view mappings as associations which come into existence when we try and conceptualise various things in the world around us. Also, it is claimed that mapped relations between diverse mental spaces are culturally and lexically oriented, so they underlie any attempt at meaning creation as well as interpretation (Fauconnier 1997: chapter 1). Further, mappings are accessible due to the Identification (ID) Principle, aka Access Principle, which again in a very mathematical formula presupposes that any two objects, a and b, may be pragmatically linked, within a certain discourse and context, so that the description of a will necessarily identify a's equivalent, i.e. the description of b. Applying the ID Principle to a specific example, we can identify a surgeon as a butcher in the classic CIT instance: "This surgeon is a butcher". The sentence enables us to perceive one profession in terms of another, and thus look for correspondences

between the two. A case in point might be the lack of precision on the part of the surgeon who acts in his practice more like the butcher, perhaps being too rough or heavy-handed, perhaps treating the patient as if they were nothing more but the meat to be chopped and rid of. We could also compare the surgeon's scalpel to the less refined axe or chopping knife of the butcher's, to mention just a few mappings between the mental spaces that arise in this instance, i.e. surgery and butcher.

Having briefly introduced the basic concept which CIT relies upon, i.e. an idea of a mental space, I would also like to touch upon some more important principles governing the blending of mental spaces, before I proceed to the critique of the theory, as it will hopefully increase the clarity of the argument presented below. Let us, then, have a closer look at blending itself. CIT assumes that a projection of elements from one mental space onto another will create a third unit which originates in the blending of the initial mental spaces juxtaposed with one another. Hence blending is presented as a mental operation which includes two mental spaces between which the mappings are distinguished, aka input spaces, a generic space which is a more abstracted mental space with general information that is mapped onto both inputs and realised by them, and finally a fourth space which is referred to as the blended space. Such a blend "[...] inherits partial structure from input spaces and has emergent structure of its own" (Fauconnier 1997: 149), so it also acquires the conceptual meaning of its own and can be further elaborated on via additional connotations which a language user might be able to bring into the picture. When we perform the blending of two inputs, the following conditions must be satisfied in order for the blended space to be constructed appropriately:

CONSTITUTIVE PRINCIPLES

- Matching and counterpart connections

- Generic space

- Blending

- Selective Projection

- Emergent meaning

 - Composition

 - Completion

 - Elaboration (Fauconnier and Turner 2002: 44–50, 345).

The above mentioned rules are to provide the guidelines as to how we can perform conceptual integration in theory. In practice, whenever we merge two separate mental spaces, we find mappings between these so that counterpart topological relations are established, however, only certain pieces of information will have their counterparts, which means

that not all the elements of each mental space will be relevant and needed in accordance with the principle of selective projection. The generic space prompts us to find according correspondences in that it provides more abstract structure and roles to be found within each input. When the mappings are transferred from input space 1 onto input space 2, we project the correspondences onto the blend and set the information there. Specifically, the mappings based on inputs constitute merely a starting point and the blend uses those to acquire the emergent structure of its own. Firstly, the blended relations are composed as associative and equal. Afterwards, we can add more elements from encyclopedic or background knowledge, from a given culture and norms or beliefs, etc. in order to complete the blend into a novel self-contained, composite unit on its own. Eventually, the new emergent blend is refined or expanded which can be achieved via bringing about new meanings, associations or additional semantic components that do not stem from the input spaces, but rather come about thanks to the novel extended structure of the blend itself. Normally, in each case there is a graphic representation of the contents of CIT procedures.

In addition to Constitutive Principles, the CIT proponents distinguish the so-called Governing Principles, which are as follows:

GOVERNING PRINCIPLES FOR COMPRESSION:

- Borrowing for compression
- Single-relation compression by scaling
- Single-relation compression by syncopation
- Compression of one vital relation into another
- Scalability
- Creation of compression
- Highlights compression

OTHER GOVERNING PRINCIPLES

- The Topology Principle
- The Pattern Completion Principle
- The Integration Principle
- The Maximization of Vital Relations Principle
- The Intensification of Vital Relations Principle
- The Web Principle
- The Unpacking Principle
- The Relevance Principle (Fauconnier and Turner 2002: 309–352).

As it becomes apparent, all the Governing Principles centre around the phenomenon of compression. It is a term readily used by the theorist to apply in their study of meaning in terms of blending. Compression is the activity by means of which humans fuse, or ‘scale down’, the space links between the inputs into the internalized correspondences of the blended

space relations (Fauconnier, Turner 2002: 92–93). Essentially, compression may be classed as the tightening of a topological mapping within the blend. To give an example, if you receive the formal correspondence, frequently on the envelop you can find the statement along the lines of *You can return this mail free of charge*. The personal pronoun you from the exemplary statement compresses each individual receiver of such mail into one with all the others, so you refer really to every single person who has the envelope with the official post. Nonetheless, compression is related to another part of CIT theory, i.e. the Vital Relations. Therefore, before I explain the above Governing Principles, I shall now briefly depict Vital Relations for the sake of maintaining clarity and order in the article.

Vital Relations are nothing more but repeated patterns of conceptual relationships that are compressible and may take the form of:

change, when there is a link between two associated elements in blending with a clear alteration, e.g. when we compare a real person to their photograph

identity comprehended as the relation of sameness

space, which can be manipulated, e.g. by compression of imagination and reality

cause-effect relation

part-whole relation

representation to the extent that one input represent the other, e.g. a real person and their painting

role which often is regarded as a profession or a function

analogy which rests on the compression of role and values

disanalogy

property or characteristic feature of an entity

similarity, i.e. shared property

category

intentionality in terms of mental attitude or emotions

uniqueness to the extent of displaying an exclusive or distinct property (Fauconnier, Turner 2002: 92–103; for more discussion see Libura 2010: 95–104 or Jabłońska-Hood 2015: 38–39).

According to Fauconnier and Turner, Vital Relations can be compressed in many different ways. A case in point might be compressing change and identity, or cause-effect as linked with time, space or change, to give an example (for more see Fauconnier, Turner 2002: 92–101). This cognitive work which arises due to the interrelation of compression and Vital Relations allows language users to better process the conceptual integration, as a tighter and more integrated unit, which goes along with

the Topology Principle securing the inner-space topology, i.e. the mappings within each input, and corresponding these to the outer-space topology, i.e. the relations between the inputs. In addition, compression also guards the Pattern Completion Principle by topping up the blend's structure via the use of existing integrated patterns as additional inputs and also through compression of the outer-space relations. All this is promoted to achieve an integrated blended space, in accordance with the Integration Principle. Further, the Maximization and Intensification of Vital Relations in the blend is a principle that ensures tight compressed vital relations within the blend that can be manipulated backwards to the inputs as a web of correspondences, as well as extended without too much cognitive effort. The latter is known as the Web Principle. Then Fauconnier and Turner refer to the Unpacking Principle which makes sure that the whole network of mappings can be easily reconstructed from the blend. Eventually, the Relevance Principle assumes that each element in the blend will be relevant with regard to other spaces and the blend's emergent structure, while the outer-space mapping that are secured between the inputs will be compressed for the sake of the blend (Fauconnier, Turner 2002: 325–334).

Having thus prepared the grounds for compression-related principles, I shall now briefly describe how they ought to operate for successful conceptual integration. The first such principle is borrowing for compression, which stands for the fact that frequently one input space has a coherent structure which is transferred onto another “incoherent” input and then compressed for the sake of blending. This occurs in the expression “digging your own grave” which the proponents of CIT apply to the analysis of a bad financial investment. Certainly, comparing a bad investment to digging a grave requires some cognitive effort, and with a clear structure of grave-digging and its stages (starting the process, with all the effort involved and finalizing it with the grave being ready, etc.) we can easily project it onto financial investments which are bad, as if starting the process of spiraling down, which is equivalent to the beginning of grave digging, and the financial ruin which is related to the hole being dug up and ready for the deceased to be put in it, where the death is equated with financial destruction or bankruptcy (Fauconnier, Turner 2002: 324).

The next principle, referred to as a single-relation compression by blending, relies on the fact that some outer-space Vital Relations such as Time or Space, may be scaled down in the blend or between the appropriate inputs. For example, the present and the past or future can be scaled down to one and the same moment in time (Fauconnier, Turner 2002: 324).

As for single-relation compression by synecopation, a good example is provided by Libura (2010: 106) who discusses the Polish craftsmanship of Drzwi Gnieźnieńskie (“Gniezno Doors”, aka Porta Regia or Porta Aurea [Latin] – a unique piece of art in Poland) onto which some chosen scenes from the life of Saint Wojciech have been incorporated. The idea is that the diffuse structure is compressed by limiting its contents to only a few chosen elements of it. Hence, rather than presenting the whole life of the above mentioned Saint, which would be impossible to display on the bronze door of the church, we choose and refer to certain moments only.

Compression of one vital relation into another is simply the activity of tightening one vital relation, for instance cause-effect, into another, for example uniqueness, i.e. we blend car factory with its product, i.e. the automobile. There are many such compressions allowed by Fauconnier and Turner (2002).

When we consider scalability, it needs to be explained that people who produce blends are able to scale down their frequently heavy contents into manageable relations. Thus, they scale down or compress time, space, change, cause-effect, part-whol, property, similarity and intentionality. A good examples is the regatta race that Fauconnier and Turner mention in their book (2002: 63–65) where two different ships are compared to each other, although they existed in different time zones, hence the time difference is scaled down to simultaneity.

Creation by compression is a regulation which simply refers to the fact that by mapping different entities onto each other and then projecting these into the blend in a compressed form, we create a novel correspondence, nonexistent in any of the inputs at hand.

Last but not least, highlights compression refers to the capability of compressing diffuse elements of a detailed and complicated story into mappings in the blended space by means of categorisation, property transfer or synecopation.

To recap, there are rather many governing principles which are to depict compression of CIT, and hopefully the above brief explanation has been helpful as their introduction.

In light of the above, thus safeguarded conceptual integration, in the view of Fauconnier and Turner (2002) ought to still achieve human scale. Specifically, it means that CIT should be easily manageable by the human mind, which is counted as an overarching goal of blending realised by its subgoals:

Compress what is diffuse.
Obtain global insight.
Strengthen vital relations.
Comp up with a story.
Go from Many to One. (Fauconnier and Turner 2002: 346).

All these overarching goals basically relate to the need to keep CIT feasible and comprehensive by a cogniser which appears to be attainable to a large extent via compression of vital relations.

Finally, I would like to present the differentiation of various blends that the paradigm's proponents advocate, since it will be crucial for clarity in the critical evaluation of the theory below. Let us start, then, with simplex networks. It is claimed that within a simplex network conceptual integration builds mappings between roles of one input and their respective values in the other. Essentially, we link compatible elements from different mental spaces and there is no incongruity involved at all. Moreover, the input space which provides the roles, also provides the organizing frame for the other input mental space with values. As an illustration, Fauconnier and Turner (2002: 120–122) mention family frame with its members. Specifically, when we talk about Paul being Sally's father, we set up an input space of role elements such as father and daughter, etc. In addition, we also conjure up another input space with concrete values relating to the above roles, i.e. Paul and Sally. The roles and values are mapped onto each other and then projected to the blend as the following relations: father-Paul and daughter-Sally. According to the authors of *The Way We Think* simplex networks deal with role compressions which are crucial in communicating (Fauconnier, Turner 2002: 122).

Another type of conceptual integration network is known as a mirror network. In this configuration, all the spaces, i.e. the generic space, both the inputs and the blend, share one and the same organizing frame which simultaneously specifies the details regarding the contents of all the spaces incorporated by its means. A good example of a mirror network is a classic case of the Buddhist Monk riddle where his ascend and descend need to be superimposed in the blended space (or to mirror each other) in order to make sense of the situation presented. What is paramount for mirror networks is the fact that there will be no incongruities between the input spaces, since they share an organizing frame. Nonetheless, there will be clashes in the blended space with regard to the particular elements that are mapped and equated as one. Here the descend and ascend will be associated, for instance, or there will be two monks one going upwards and one going down the mountain. Also, mirror networks

display compression in reference to time, space, identity, role, cause-effect, change, intentionality and representation. (for more on this see Turner, Fauconnier 2002: 40–50, 122–126).

Single-scope network is another kind of blending network recognized by Fauconnier and Turner. It can be characterized by two input spaces that possess different organizing frames, one of which being projected as the organizing frame of the blended space, too. A case in point is the projection of the boxing match (input space 1) onto the fight between two CEOs in business, where the former provides the organizing frame for the blend and determines its mappings and contents. The asymmetry, then, in the transfer to the blend constitutes a characteristic property of single-scope networks, alongside with the clear conceptual incongruity that arises in the blend. Furthermore, the compression which is encountered in this case is the one preserved from the compressions arising from the input spaces at hand. In the quoted boxing match example, we compress the identities of fighting opponents in the boxing match with fighting CEOs in business, we also compress events, i.e. the boxing match and the business competition, time or space, as well as the respective roles and values (Fauconnier, Turner 2002: 126–131).

Finally, let us have a closer look at double-scope networks. Fauconnier and Turner regard this type as highly creative, for it will necessarily involve a considerable amount of imaginative effort on the part of its conceptualiser. To be specific, a double-scope network is characterized by two varying input spaces which exhibit different organizing frames with numerous incompatibilities present already on this level. Each provides some organizational building blocks for the blended space which displays an emergent structure of its own, also with many incongruities. The proponents of CIT quote the computer desktop interface as exemplary in this respect, with one input space of office work being corresponded to the other input of traditional computer commands (Fauconnier, Turner 2002: 131–145).

The conceptual integration process might be regarded as a meaning construction process in language, and in fact it is advocated by its proponents as a basic operation of the human mind. Both Fauconnier and Turner (Fauconnier, Turner 2002; 2006: 304; 2008b online; Turner 2014) state that blending is the basic cognitive mechanism; the way the human brain operates in that it takes two qualities that we are familiar with, then it mixes these and finds similarities between these, too, in order to produce a blended, novel entity which has not been utilised beforehand. The proponents of CIT also stress that it is a mechanism common to all

humans and not restricted to any specific language use, such as poetry or formal language, for instance. On the contrary, blending seems to be a basic and everyday procedure we are all capable of and comfortable with, whether it is used consciously or subconsciously. It simply is how our minds work and the way we think (Fauconnier, Turner 2002: 396).

Issues with CIT

Having specified the most vital principles that blending utilises, I would now like to examine the problematic areas of the paradigm that are frequently quoted as the theory's weak points. Additionally, I would also like to present a potential way in which the critique can alter and better the theory in question, where possible. In the end, I will also attempt at providing a few improvements which stem from other linguists' research as well as my own studies on CIT with regard to humour.

Overarching and underspecified paradigm

Let us begin with the feedback that is readily produced in relation to blending and its "miraculous" capacity for explaining everything. There is a great deal of CIT's opposition which undermines the paradigm due to its diverse application, such critique being found, for example, within the works of Tendhal and Gibbs (2008 online), Gibbs (2000), Coulson and Oakley (online), Cienki (2008: 236), Oakley and Hougaard (2008); Hougaard (2005, 2008), Harder (2005), Ritchie L.D. (2004), Libura (2010), Bache (after Libura) or Handle and Schmid (2008), to mention just a few. To demonstrate the problematic elements of CIT I shall have a closer look at the opponents' critical remarks below.

Without doubt, CIT has been used to successfully explain processes and phenomena in such vastly diverging fields as literature, mathematics, law, humour, sciences, and many more (Oakley, Hougaard 2008: 1; Jabłońska-Hood 2015: 30–31). The range of topics it appears to cover does indeed give rise to questions about its validity, and hence its accuracy. For it is common knowledge that if a theory explains it all, it really does not explain anything. Even the title of Fauconnier and Turner's latest book on CIT, i.e. *The Way We Think* (and the use of the definite article herein), presupposes that the mechanism of blending is universal, to say the least (Libura 2010: 147–148, or 187–188). Bache, for instance, doubts the paradigm on the grounds that it is all embracing, and used to elucidate

not only human thought processes, cognition, conduct, language as well as culture, but amazingly also the origin of language (Bache 2005 after Libura 2010: 147–148). I must agree with the above criticism and admit that the overarching application of blending to the explanation of miscellaneous things does pose serious questions in respect of CIT's credibility. Nevertheless, I do not dismiss the theory lightly, as some might be willing to do. I am inclined to think that there needs to be a serious rethink or reformulation of CIT's aims and purposes to which it can be used. The fact that the theory specifies the accurate patterns for diverse linguistic and non-linguistic phenomena might well raise the eyebrows of many, yet there is another side to the issue. Namely, both proponents of the theory believe that blending is to be conceived of as a higher-order theory which provides a formula for our human conceptualisation and thinking capabilities in general in the format of advanced blending that has evolved over the years (Fauconnier, Turner 2002: 396; Turner 2014: 253–254). What it presupposes is that blending, in fact, should incorporate many various, and perhaps even conflicting areas of study in a principled, but general manner, the one which is suitable for our brain. Since the human thinking apparatus is one but it makes sense of so many different things around us, it ought not to be surprising the patterns of human thought appear to be identical for miscellaneous disciplines (Turner 2014: 253–260). Seen in this light, blending of varying mental spaces may be compatible with a great many fields of study. Further, it would be suspicious if CIT, which is advocated by the proponents as a basic operation of our mind, only fits with certain disciplines that explain the world around us, but not others. As a higher-order process it must be just what the evidence displays, i.e. a kind of an all-encompassing paradigm, unfortunately, but in the most positive sense of the expression. What I consider far more daunting is the fact that the omnipresence of the theory's application might pose a serious problem for CIT with reference to its vague and overgeneral principles (see the section below) that allow for such versatility, but in essence throw light on little. Hence, the issue at hand is that of falsifiability of blending, which appears to be its main disadvantage, rather than its methodological verifiability (Libura 2010: 148, cf. Gibbs 2000 or Handle, Schmidt 2008).

Yet another interesting take on CIT has initially been brought to attention by Gibbs (2000), and later on by Tendhal and Gibbs (2008 online), in that they notice in CIT a lack of specification of the conceptual representation of meaning. There are obviously mental spaces, that are of different origin, to be blended in each instance of conceptual integration, however, these constructs are highly underspecified, making the para-

digm into not only all-encompassing, but more importantly an open-ended theory (Handle, Schmid 2008: 7). For instance, we know that mental spaces are triggered by linguistic units, but somehow we are not aware of what they truly are, or how this procedure is in precise terms secured by the paradigm's methodology (Oakley, Hougaard 2008: 2). Fauconnier and Turner do not provide any information as to how mental spaces are to be selected, and neither do they discuss their nature. According to Tendhal and Gibbs (2008 online), we are not informed of whether mental spaces are image-schematic or embodied conceptual spheres of association, or whether their nature is metaphoric or metonymic, for example. This raises even more serious questions about the paradigm's main theoretical construct, since we have no information on its selection and, more importantly, on its nature. I presume this underspecification makes the idea of a mental space very abstract and general. Although the creators of blending themselves compare and relate mental spaces to entities such as frames or domains (e.g. Fauconnier, Turner 2002: 40, or Turner 2014: 4), for example, it still does not provide a clear enough theoretical depiction. Especially, if we take into account that the methodology additionally introduces the notion of the so-called organization frame for mental spaces (Fauconnier, Turner 2002: 119–135), e.g. a boxing match organization frame which is then mapped onto the fighting CEOs in business (Fauconnier, Turner 2002: 126–127). This makes matters even more confusing, for my part. Especially if we consider that in many varying analyses the construct of a mental space is used with ease and to generate conclusions based upon it, which can be regarded as a serious fault in the systematic theory of blending. However, this is merely a tip of the iceberg, since CIT generally suffers from imprecision in its methodological background. Many other building block principles of the paradigm are abstract and ill-defined, such as the running of the blend (Chilton 2008: 251), otherwise known as adding more framework that is relevant to the already blended contents in the process of elaboration via searching for interconnected frames, domains or ICMs that might be useful (Fauconnier, Turner 1998: 5). In a nutshell, apart from the terminological circularity, we have no detailed information pertaining to this procedure in question. In addition, Libura shows dissatisfaction with the way in which the topological mappings are to be established between various mental spaces. A case in point is her analysis of discourse processing (in relation to a newspaper text on NHS in Poland), whereby space-builders¹ are not necessarily clear to all

¹ Space-builders, aka linguistic units or words that prompt CIT, were introduced in Fauconnier's early work on mental spaces e.g. Fauconnier 1994.

the cognisers from the text itself (Libura 2010: 33–38). As Libura notices, some space-builders might take the form of ethical norms, politeness or conversational techniques of different kind, so they will not be verbalized, but they will enter meaning construction via the text creator who, for some reason, might wish to demonstrate their own objective or subjective viewpoint, and leave the addressee of the message to reconstruct the status of respective inputs accordingly. Thus, Libura postulates to differentiate the relations between various elements of the same and different mental spaces (i.e. inner-space as well as outer-space connotations) from the discursive links bearing on them which may display discursive results, causes and effects, contrasts or parallels (Libura 2010: 44 or 59, for a detailed discussion see Libura 2010: 4044). Further, she mentions the dangers that a face-to-face communication might pose in terms of incorporating non-verbal cues into the mental spaces construction, which, on the other hand, impacts on the overall rendition of blended meaning (Libura 2010: 37). Additionally, Libura notices inconsistencies of Vital Relations and their functioning in creating blends, whereby certain vital relations such as part-whole and role-value pairings necessitate CIT, while others do not (Libura 2010: 103–104). It is no surprise, then, that she rejects Fauconnier and Turner's take on compression as a notion that holds merely between relations of inputs. She observes that in CIT people frequently compress the relations between objects or structures of inputs, just as in the compression of dinosaurs to birds (Libura 2010: 110–111). On top of that, Libura advocates extending topological correspondences to include image schemas or frames, roles, scripts or even emotions scenarios, etc. (Libura 2010: 113, 174). Besides that, Libura (*ibid.*) finds problematic the manner of establishing correspondences between the generic space and its respective inputs, as prescribed by the theory in question. Namely, specifying that a generic space is to simultaneously mirror the whole common structure between the inputs as well as provide the core of the pattern between these has far-reaching consequences (Fauconnier, Turner 2002: 47), so Libura accuses the methodology of the impreciseness again. Besides, she quotes as evidence the fact that the proponents of CIT frequently fail in the above respect themselves, either by not providing a generic space for their illustrations at all or by the vague description of its details (for more refer to Libura 2010: 74–85). Such inconsistencies clearly constitute an obstacle for the whole paradigm. As an additional point to consider, Libura mentions simplex networks where one input actually provides the inherent blueprint for another, so the generic space is truly obsolete (Libura 2010: 80). A valid point is also made by her statement that in

many blending analyses the conceptualiser must refer to more than one schema which can then be incorporated within the generic space, and at other times additional correspondences surface that have not been predicted by any schema but are crucial both for the generic space or the whole integration (Libura 2010: 82–83). Eventually, Libura criticizes the lack of the uniform schema of graphical representation for blending, which does not culminate in a clear and stable convention of a descriptive manner (Libura 2010: 58). Yet, other voices in the debate do not seem to mind the variety of graphical representations. Specifically, Hougaard and Oakley claim that non-unified nomenclature simply mirrors the subjective ways of presentation of CIT on the part of researchers (Hougaard, Oakley 2008: 19). Following this view, I am inclined to accept that a varied representation of meaning creation, which probably stems from a subjective perspective on the part of scholars is the least worrying, when it comes to CIT, although it certainly makes the literature somewhat harder to digest and desires more cognitive effort from a text addressee.

As a result of her discontent with the methodology, Libura herself proposes a few alterations to the theory in terms of the generic space and its relation with the inputs, which I believe are important. She assumes that any generic space is to be construed based on the analogies between the inputs, and it ought to mirror all their common properties; whereas in highly creative blends which built their integration on one of the inputs, this very input should take over the role of structuring the other input mental space, instead of artificially establishing a generic space that is bound to be inadequate. Finally, Libura concludes that for any two inputs which reflect the same cognitive picture with different level of detail, the construal of a useful generic space is not likely to happen – a proposal that can be also found in Ritchie who claims that within certain instances of blending the idea of a generic space may well be substituted by some other connecting idea (Libura 2010: 84; Ritchie 2004: 37–38).

A valid point with regard to CIT's methodology is also made by Ritchie (2004) who scrutinized conceptual integration based on the space and blending metaphors it utilises. In his article, Ritchie argues for the rejection of such metaphorical language, as it may taint the potential analyses by means of blending. A case in point he provides is the monk puzzle where Fauconnier and Turner as a matter of fact confuse the notion of literal space with the theoretical concept of a mental space. As Ritchie observes, a simpler reanalysis of the riddle would present the monk in one location or mental space, either ascending or descending (Ritchie 2004). A similar voice reverberates in Harder's work, who in the context

of compositionality and grammar states that in many cases we do not need different mental spaces and their blending, but rather what we need is one mental space which is coherently construed (Harder 2005).

Consequently, it becomes apparent that there is a high degree of theoretical imprecision within CIT to be altered so that it can provide a real insight into cognition and language processing.

Falsifiability and micro-social focus

As far as the empirical evidence for CIT is concerned, Gibbs (2000) and Ritchie (2004) are of the opinion that CIT would benefit from inspecting its nature in a psychological manner. Both the scholars advocate falsifiability tests and empirical evidence that would help to predict if CIT's apparatus does indeed shed light on the workings of the human brain. Gibbs (*ibid.*) proposes that blending ought to revisit its governing principles and constrain them: "The challenge for blending theory is to find ways in which different parts of the theory can be articulated so that these hypotheses can in principle be subject to tests of falsification." (Gibbs 2000: 350; for more discussion see below in this section). Gibbs also suggests comparing and contrasting CIT with its alternatives for empirical clarity. However, the most crucial challenge that Gibbs puts forward, in my mind, regards the issue of whether concluding about meaning construction in language, based on the evaluation of meaning product, is psychologically valid. This stance is challenged by Coulson and Oakley (2000), who appreciate the critique, yet they still maintain that post-hoc CIT analyses are essential for drawing conclusions about the meaning construction process. In Gibbs' view, however, it would perhaps be better to turn to the socially constructed blending which provides for CIT not as a product but as a process of meaning rendition, and as a result measures the usability of certain components of the theory in question. Furthermore, Gibbs proposes to measure how embodiment can limit what concepts are actually capable of being blended, which would produce an interesting perspective on CIT and its meaning status. Lastly, Gibbs maintains that CIT needs to resolve its representational dimension by elaborating on its ability to cater for diverse mental experiences, which counts as a valid observations, yet if viewed as a higher-order theory, CIT would truly have to elucidate a great deal of cognitive mechanisms, which was already mentioned above.

The social focus of cognitive integration, as initially hinted by Gibbs, has since been applauded by other scholars (e.g. Cienki 2008, Dancygier

2008, or Hougaard 2005). In consequence, Oakley and Hougaard (*ibid.*) stipulate that more attention needs to be paid to inspecting CIT as a shared or public cognitive operation, rather than treating it as merely individualistic in respect of meaning construction. What follows from that is also the idea that Dancygier (2008) proposes that CIT ought to be applied to the complex linguistic analysis of discourse comprising more than just single utterances (e.g. Dancygier uses CIT for the analysis of fictional narratives), which eliminates another grave threat to CIT, i.e. decontextualisation of studied examples. A similar vein runs in G. R. Hougaard and A. Hougaard's research which promotes cognition as a phenomenon of 'interacting bodies' (Hougaard, Hougaard 2009: 47–78). Further, Hougaard (2008: 197–198) makes a strong claim about the redundancy of focusing on individual mind in terms of cognition. He proposed that it ought to be regarded as irrelevant in shared cognitive work perspective in cognitive science. Interestingly, Cienki voices his criticism with recourse to CIT (2008: 236) by questioning the identity of a cogniser behind the blending, stating that such a language user is underspecified, and might be confused with the researcher who studies patterns of blending. Hence, to avoid this pitfall, Cienki advocates the "micro-sociological" analysis of blending, i.e. the one conducted with reference to communication, along the lines of Hougaard, in context and enacted (Cienki 2008: 240), and not by a somewhat vague concept of individual minds.

As far as the empirical and psychological testing is concerned, the repeatedly asked question concerns blending's applicability to fMRI scanning. The obstacle, however, is the excessive difficulty in devising reliable testing procedures in this respect. Fauconnier himself informs us that scanning is considered a great technique and it does have incredible potential in science, but, there is no way in which scholars would write a testing procedure to check whereabouts in the human brain blending takes place or how credible it is. According to Fauconnier, "Neuroscience has made awesome progress in recent years, but does not provide direct observation of conceptual operations like mental space mapping" (Fauconnier after Coulson online).

Nevertheless, there has been some progress with empirical evidence to do with blending. To be precise, Turner and McCubbin (McCubbins, Turner 2013) have participated in a project where CIT has been applied to computer technology and experiments have been run within AI area in order to prove whether a machine can perform the technical operation of blending divergent mental spaces. The experiment proved successful

to the extent that the results have brought about issues to do with CIT. A case in point might be the unlimited projection between the input spaces. The computers did not tackle the inputs and partial selection from them too well, and did not know where to stop in creating mappings. This finding provides a crucial feedback in relation to CIT, as it necessitates the reformulation of the hypothesis and its principles in order to eliminate the knotty issue. Exactly the same difficulty has also been raised by Ritchie (2004) who mentions the limitation problem in any potential empirically devised AI testing. As much as Turner appreciates the feedback from the above experimentation, he is inclined to believe that blending ought not to be regarded as an algorithmic process (Turner 2015, based on Blackmore 1992). For his part, in meaning creation outputs will never be a mere consequence of the inputs but so much more. Meaning cannot be interpreted as an algorithm, as it incorporates many additional associations which are not directly retrievable from the inputs only. So perhaps the evidence from AI research is interesting and helpful to the extent that blending might be afterwards reformulated, yet such testing should not be comprehended as final and conclusive, at least at this stage (Turner 2015).

At this point, it is crucial to mention that Fauconnier and Turner (2002) have been noticed to attempt at conotating CIT with neurobiology and the psychological theory of memory. They advocate that mental spaces are short-term memory structures which can be prompted thanks to long-term memory reservoir. Hence, the particular elements of mental spaces are comparable with active neurons, while mappings with certain neurobiological connections. However, it is merely a starting point and such a thesis requires empirical evidence and more research for sure (Libura 2010: 24).

Recently, a far more detailed discussion of the potential testing methods of CIT is presented by Turner, though. In his book *The Origin of Ideas*, Turner (2014: 253–260) states that our brains are predisposed for advanced blending due to the human evolutionary route that allowed us to excel at conceptual integration (which was already taken up by Fauconnier and Turner 2002: 3–16). Rudimentary blending, Turner convinces, evolved into the advanced blending, which resulted in higher level of comprehension as well as creativity. By advanced blending Turner means the following:

Advanced blending occurs when two mental spaces have basic organizing structures that are in fundamental conflict, or the relations between them make a fundamental distinction, but they are nonetheless blended so that the blend has parts of each organizing structure and develops a new organizing structure of its own. (Turner 2014: 29)

An instantiation of such advanced blending is provided by the sentence ‘If I were my brother in law I would be miserable’, where the speaker is mapped onto the identity of his own relative (Turner 2014: 29). In addition, Turner introduces the label of a hyperblend, which he defines as the act of blending that is construed on the basis of one of the inputs that is already blended, i.e. it has become a template over time in a community, and another one which is not. In his theory, he explains that

Cascading² mental webs, of blend upon blend, can compress, one step after another, great reaches of thought and meaning to human scale (Turner 2014: 116).

Assessed in this perspective, CIT becomes a routine operation of the human mind, which is rather elusive, in my opinion. Apart from the introduction of a few novel terms, as well as the analysis of some beautiful examples of advanced blending to give him his due, Turner (2014) actually does not provide any more insightful information as to the paradigm’s methodology, but stresses what was already stipulated by Fauconnier and Turner in *The Way We Think*, e.g. vital relations and compression, human-scale dimension of blending, etc. Concluding, then, it is clear that the advanced blending, which I would go so far as to compare to the older term higher-order blending from Fauconnier and Turner (2002), Turner admits that falsifiability testing will necessarily be difficult in light of the above, especially if one wishes to detect such advanced mental operations as CIT in contrast with other mental activities that go on in the human brain simultaneously. In Turner’s opinion (Turner 2014: 254), brain imaging technology of today does not cater for that. Also, he is inclined to believe that strategies such as fMRI would be of limited use for this purpose, for it would probably show the mental activity highlighted in many areas of the scanned brain at one time. Yet, firstly, the demonstrated activity is precisely the blood flow in the brain region, rather than any neuronal activity which might go on in there, and secondly, as CIT, in its advanced form especially, involves making vast association across diverse mental spaces numerous activated regions are understandable, but noncommittal to any conclusions (Turner 2014: 225). Turner, however, does point towards a testing grounds for CIT. To be specific, he mentions measuring brain response through electroencephalography (Turner 2014: 255–256):

One of the most ingenious and promising techniques in cognitive neuroscience for detecting, not blending per se, but rather the ease, difficulty, or surprise of blending,

² Notice the term cascading used throughout the book, which in my mind is a direct reference to Lakoff’s neural theory of metaphor.

at least as it is evoked by language, consists of measuring brain responses through electroencephalography. These measurements are called event related potentials ERPs.

Turner refers us to the work of Coulson and Van Petten who used ERP methods in their experiments actually proving the blending's supremacy in elucidating the continuum between the metaphorical and literal. Further, Turner also notices some potential in mirror neurons which help people construct blends of self and other (Turner 2014: 256–257). Above that, he discusses a few more possibilities for future research, too (to see more go to Turner 2014: 253–269). Nonetheless, he acknowledges finally that advanced blending hypotheses are, sadly, out of reach for empirical testing for the present moment (Turner 2014: 260). Along the similar lines, Hougaard dismisses the so-called “neuro-optimism”. Hougaard's claims that it is unnatural for one, and it does not provide a direct access into the role played by mental phenomena, such as compression, in socially-oriented mankind (Hougaard 2008: 182).

As far as I am concerned, all the above suggestions provide a valid start in the necessary process of CIT's specification and reconceptualisation of its core principles, which would secure a more detailed, precise and specific theory, at the expense of the loss of its enticing qualities.

To sum up, the theory, if it is to present a valid contribution to studying meaning in language, ought to be revisited and specified to a large extent, especially with recourse to its essential concepts such as mental space, inputs and generic space, cross-domain mappings, or blend's elaboration, as well as in relation to falsifiability tests.

Potential resolutions for CIT

The multitude of work conducted on CIT in reference to many different fields of study certainly constitutes the paradigm's sore point, but it also allows for the introduction of novel parameters to be incorporated into blending research. Below, I would like to present a few interesting suggestions or principles put forward by scholars based on their experiments with different aspects of CIT. I believe that these possible alterations could help to remodel the whole theory in the long run and will certainly be of interest for respective fields of study.

Let me begin with Hougaard who conducts research in conversational analysis. He has put forward his own idea of compression, defining the vital CIT's notion thus: it is “a shared, visible, enacted, interactional process – not a hidden process – whereby sense-making human beings achieve

a certain type of condensed representation of understanding of their talk [...]” (Hougaard 2008: 180). Clearly, his take on compression is contrasted with that of Fauconnier and Turner’s who firstly assume it is a hidden process, and secondly assign it to the mind of the individual language user. Hougaard, then, is interested in referring to the compression simply as a joint cognitive effort on the part of interlocutors achieved in social interaction. He stresses that his research regards the onstage aspect of CIT in turn-taking analysis, and his conclusion is that compression becomes ‘[...] the interactional construction of gestalt-like pieces of shared memory’ (Hougaard 2008: 203) with the view of achieving human scale. This example of research proves crucial for CIT as it changes the paradigm’s focus from some underspecified individualistic mental operation of blending in respect of underdefined mental spaces to a specific conversational situation where different cognisers in a concrete context commonly build blends. It certainly resolves yet another issue to do with CIT, i.e. the idea of who is actually performing all the blending operations and whose mind it is that the theory depicts. Additionally, Hougaard raises a vital point in stating that the issue of whether we blend because we choose to, or out of necessity, ought to be of primary importance for any researcher of CIT (Hougaard 2008: 203–204). This point also reverberates in G. Hougaard (2008: 249–250) who rejects blending as THE (my own capitalization) operation of the human mind. Instead, she notices that people indeed use blending as A (one of many) interactional/social strategy in thought processing, but they might well choose not to construct a blend, if they wish so (Hougaard 2008: 250). Incidentally, Libura also proposes a closely related manouver, i.e. the scrutiny of constitutive principles of CIT in order to point to potential clues which would allow a cogniser to choose from a variety of optimal ways in which we could integrate given input spaces into the blend. Then, it would be possible to pick a certain interpretation of the blended space and not another (Libura 2010: 118). Such thoughts may prove to be essential for CIT that perhaps should get off the pedestal of the theory of how the mind and ideas work. Also, if considered merely as one potential paradigm to construct meaning with, and taking into account diverse mapping strategies between the inputs resulting in blending, CIT might actually benefit from its restricted scope, which again could be the starting point in the process of the theory’s reevaluation and remodeling.

Another interesting suggestion is brought about by Oakley and Coulson who studied the metaphorical expression ‘to connect the dots’ in terms of terrorist attacks on September 11, 2001 in the US. They conclude

that the graphic representation of activated data in CIT, especially for elaborate contextual analysis of linguistic material, appears to be overwhelming for the working memory limitations of a cogniser, as all the represented information does not exist in the observer's mind all at the same time. According to the researchers, it ought to be taken into account that graphs are merely atemporal and they represent the incremental process of human comprehension. Hence, the scholars put forward the idea of using Chafe's framework, with concepts such as active, semi-active or eventually inactive data, for CIT processes of meaning construction. In their view, this could help to remodel blending and its assumptions about construing meaning in discourse, with only certain information being activated for processing at one time (Oakley, Coulson 2008: 46–47).

Pascual has proposed a slightly different suggestion based on her research of fictive interaction blends, which has led her to think that CIT could largely benefit from inspecting basic blending types in communicative situations. This would, in her mind, aid in concluding what mental work underlies each example of blending and it could also demonstrate why certain blends are less successful, in a way omitting the problems of CIT's theoretical discrepancies. Pascual believes that studies of real communication serve as the right field to toil in, as they incorporate context of social interaction and more importantly constitute part and parcel of human language, thought and discourse (Pascual 2008: 105). I am inclined to believe Pascual's suggestions are valid, since they resonate with my own observations regarding CIT in humour (see below).

Besides that, there is a number of research devoted to the notion of grounding with respect of CIT, and several ideas have been proposed here. Initially, Brandt and Brandt (2005 online) suggested that blending must incorporate into its structure a notion of the semiotic space which represents a speaker's act of participating within the creation of meaning. For Brandt and Brandt this semiotic space is similar to Langackerian notion of grounding and speech event situation to the extent that it constitutes the cogniser's take on the communicative situation or their reflective stance in the phenomenological sense. Brandt and Brandt stipulate that in any communication speakers represent the communicative situation and thus represented situation becomes part of their meaning construction procedure (Brandt and Brandt online). Also, Kalisz (2001, after Libura 2010: 56–57) proposes to modify CIT by the introduction of grounding, and this time in the explicit way taken from Langacker who considers constructions as an illustration of an associative mental spaces which are ordered by inclusion. Hence, there is no confusion as to who

creates a set of mental spaces and meaning, too, but this only applies in construction grammar (Libura 2010: 56). Grounding certainly helps CIT in limiting the blending procedure. Chilton is of an opinion that grounding would successfully constrain the blend's emergent structure. This stance is in opposition to decontextualised studies of CIT that make the whole mechanism vague in respect of the running of the blend; where we do not know the way it unfolds or the direction of the emergent structure and elaboration, while in grounded discourse analysis, it is possible to trace the blending operations at hand (Chilton 2008: 151).

A concrete proposition for the future of CIT stems from what Hougaard calls interactional blending³ (2005: 1658) which develops dynamically over time. Hougaard proposes, after Gibbs (2000), to consider blending as multiple procedures rather than one hierarchical operation, in an attempt to reduce its abstraction level (2005: 1658). He further introduces two novel aspects of blending, namely partitioning selection as well as splitting, which he collectively refers to as conceptual disintegration. The former one he defines as “[...] the process by which something which is perceived as an integral structure gets to be mapped onto two or more discrete structural elements in another mental space and is projected to a blended space as two or more separate structural elements” (Hougaard 2005: 1664). This view clearly rejects the early accounts of the theory by Fauconnier and Turner, i.e. the Metonymy Principle that assumed we normally shorten the metonymic distance between various elements of mental spaces and compress them and thus project them, into the blended space as one (Fauconnier and Turner 1999). Hougaard proposes that splitting understood as above results in decompression, which in his view, actually becomes essential in order to attain human scale within blending. In addition, such a decomposition of the tight integrated structure of the blend also allows for its further elaboration (Hougaard 2005: 1665–1666). As for partitioning selection, Hougaard describes it as follows: “[...] the selected and projected elements all stem from the same tightly integrated source, which by the selections and projections to the blend is partitioned” (Hougaard 2005: 1673). The two principles as applied to the analysis in fact account for the human scale, which overrules the apparent decompression, it would seem. Based on such parameters, Hougaard seeks to find out why people

³This type of experiment actually deals with the dynamic facet of CIT and may be treated as the answer to one of the challenges of blending which is posed by the application of time span to the cognitive procedure of blending mental spaces and then elaborating on the blended structure. Most of the research does not even refer to this challenge, dealing with decontextualised instances of language.

blend, and one conclusive remark that comes to attention regards the fact that blending allows language users in interaction to create certain effects, e.g. to block unwanted automatic projections, or to bring pleasure, to keep their face or to be humorous. Further, Hougaard recognizes the conceptual disintegration as a basic mental operation. Such conclusions also prompt Hougaard to state that blending, modified by splitting and partitioning selection, ought to be studied at the process-level (Hougaard 2005). Interestingly, in a rather similar vein, Libura states that a certain degree of disintegration on the part of a novel structure created due to blending is oftentimes a necessity in order to keep the web of integrated spaces tight (Libura 2010: 115).

The final suggestions that I wish to submit here originate from my own research into blending, with regard to humour (Jabłońska-Hood 2015: 155–231). I have consistently noticed that humour necessarily involves the notion of incongruity within the blended space for it to be perceived as comic. Yet, I believe that this incongruity needs to be investigated further to take the form of concrete parameters. For instance, it would be good to inspect and contrast humorous and non-humorous blends and see how these differ in terms of incongruity, or whether there are any types of incompatibility that belong only to the area of the comic, or, conversely, become exclusively part of non-amusing situations for that matter. Moreover, it could be evaluated whether the said incongruity is always within the blended space, or whether it can originate already in the inputs, or still if it actually arises during the running of the blend. Another possibility would be to assume that there are many incongruities that work together for the strengthening of the comic effect in the end.

Next, from my research into sitcoms it becomes apparent that English humour consists of mostly single-scope or less often double-scope blends abounding in further allusions or references to culture, history, world knowledge, etc., which is a prerequisite. So not only do we have a special representation of CIT with the generic space, input(s) and the blend, but via the emergent structure of the blended contents we arrive at additional mental spaces which enrich the blend and intensify humour, too. Also the discourse level of the analysis, based on the verbal ambiguity, is often a catalyst for all the multi-space web of blending, thus culminating in what I call its 3D nature. Taking all that into consideration, It would then be useful to scrutinize other formats of comedy and humour, also tackling other kinds of humour than the English, and juxtapose the results both for the sake of CIT and humour studies. We could perhaps thus generalize about different types of blends, mental spaces, the emergent structure

of the blend where most of humour is created, or processes such as the running of the blend or creating topologies between the inputs in humour. Finally, the same type of humour-related data could be given for evaluation to individual respondents as well as to microsocial or interactional situations with multiple interlocutors, which would certainly allow to conclude about the dynamic facet of blending, its effect on meaning construction in interaction and outside of it, as well as shed more light on the essential properties of humour.

One more remark I wish to put forward pertains to the fact that blending could well be applied into multimodal humour, such as cartoons or stand-up, where the meaning of gestures, prosody and nonverbal cues can certainly be tackled by CIT and can reveal a lot about human mechanisms of comic meaning creation, and thus also of nonhumorous meaning construal. I am inclined to believe that CIT can improve humour research and study, and reflect on language studies simultaneously (Jabłońska-Hood 2015).

Conclusions

About ten thousand words later we are sadly still left without the good recipe for the in-depth specification as to how the blending ought to be depicted with methodological rigour. The same queries still remain unanswered and we are, supposedly, nonethewiser. One pressing question regards, for instance, the manner in which we choose to set up random inputs against one another. Another one relates to the partiality of mappings involved in the correspondences between the inputs, both individually and collectively. We do not have any inclination as to how many mappings need to be found, and why not all the elements but only some are juxtaposed. Thirdly, if we do assume that the blend will always show incongruity, how come the same incongruity serves to explain law, maths literature and humour. It is bizarre that there is no differentiation of the incongruity's source or kind, and perhaps this is the area that we ought to focus upon initially, in order to proceed with the hypothesis and research it extensively. Further, the add-ons which elaborate the blend also constitute merely a fuzzy term. We presume that they must be situated within a conceptualiser's context, but we have no specification as to the type of conceptualiser we deal with. Still less is said about the language user's background to be incorporated into the blend and that could do with a fairly good explanation, too. Next, when running the blend, we necessarily expand its contents, but still we are not sure where exactly to go

from here. As in the previous piece of criticism, we never know what kind of extension is fine, which extension would be too much and thus inappropriate, if at all, or whether or not we are able to expand in an unrestricted manner, in which case we would end up with a blend so enlarged that it would definitely have very little to do with the original inputs, or whether we need to stop the elaboration at some point. But then again the question is when and why. Among these daunting issue, I think incorporating certain suggestions presented above would be of great help. For instance, I am inclined to think that if we apply Libura's idea of input space specification with regard to image schemas, frames, roles or emotion scenarios, that could significantly improve at least some analyses by means of blending. The same situation regards the optionality of the generic space, as put forward independently by Libura and Ritchie, who notice it may be unnecessary or difficult to impose. Especially in single-scope illustrations of humour where we usually have one of the inputs assuming the form of an idealized script/scenario or role which is then distorted in the sitcom realization (which becomes the other input space in comedies). I find this proposal highly effective, and believe further research could verify and validate these candidates for the remodeled blending principles. Also, the idea of introducing grounding is a must for socially-oriented cognition, e.g. in humour, as in its complex medium we often have layers of meaning as unfolded by different conceptualisers. This would greatly simplify the role of the researcher and clarify the measuring procedures by means of CIT.

What also strikes me as surprising is the lack of a definitive conceptualiser who performs blending. Such a concept is never specified within the paradigm, but Turner (2014 and 2015) in his latest work prescribes the necessity of introducing context into CIT, yet again, it is merely a floating thought rather than a concrete principle. Therefore, the specific hypothesis to regulate this lack, or perhaps an introduction of a context space, as advocated by Brandt and Brandt (2005: 235), or any other manner of grounding CIT, as an addition to the overall conceptual integration network, would do the trick and resolve the issue of decontextualisation, to a large degree. I am also particularly fond of diverting the CIT research towards the interactional and social perspective, which would certainly resolve the trouble with the potential cogniser who performs the blending operations.

In a nutshell, CIT would greatly benefit from more elucidation of the said issues.

All in all, CIT does provide a rather interesting perspective on human thought and conceptualisation. It is not a complete theory by far, but in Turner's words (Turner 2015) it is a work in progress such as any other scientific enterprise and as such it ought to be treated. It could do with an improved specification and grounding of its guiding principles, with more empirical research to verify its hypotheses, as much as with the incorporation of contextual notion of joint attention, conceptualiser, viewpoint, embodiment as well as multimodality, as recently advocated by Turner (Turner 2014 and 2015).

One needs to, however, acknowledge CIT's strengths in meaning construction, too. Libura highlights the role the mental spaces theory played in describing diverse phenomena such as counterfactuals, fiction or books in a fairly uniform manner, via applying common mechanisms to such studies (Libura 2010: 60). Further, CIT can deal with imagined scenarios that are only prompted by language and it allows for studying mental operation pertaining to theses (Libura 2010: 69). Libura also mentions the fact that blending may be based on the notion of inputs that have already been blended and have become entrenched in the process of the so-called advanced blending. A case in point is the concept of number in mathematics that Fauconnier and Turner elaborately elucidate on in their book (Libura 2010: 72; Fauconnier, Turner 2002: 270–274). This procedure can certainly be viewed as interesting in meaning comprehension. Finally, Libura (online) stresses the fact that CIT is one of the most elastic models of interpretation which allows for deep resurfacing of input spaces (e.g. the analysis of 'digging one's own grave'). No many other paradigms offer such possibilities.

Gibbs (2000), on the other hand, points to the important fact that CIT actually can tackle complex meaning construction process which is not always possible to be explained by means of metaphor theory. More importantly, it deals with the sophisticated meaning construction owing to its multi-space model and emergent structure of the blended space, rather than simply via selection. With all these alterations, it could certainly be classed as one of the most important paradigms within the studies on language and human thought despite its weak theoretical background.

Whether CIT is a blessing or a curse remains to be seen. However, I tend to veer towards the viewpoint that we cannot deny CIT its power to create attention in language research. No other theory, I presume, has ever caused such a stir among scholars, attracting hardcore fans as well as strong opposition. The only thing that is certain is the fact that it has given researchers the apparatus to measure cognition in multiple ways, even

if we continue to stress its lack of methodological rigor or impreciseness. To my mind, this is far more than what other paradigms offer, and as long as there is dialogue between various fields of research and cooperation in bettering CIT (Turner 2014: 260), I remain hopeful in that we shall be able to see more constrained and better suited versions of CIT, which ought to cater for different purposes in research on language, thought, meaning creation and interpretation. But the collaboration ought to be constructive and a great deal of research should be devoted to checking the above mentioned solutions to blending. If they were to be validated, we could certainly see the light in the tunnel, slowly but surely. Meanwhile, it has to be enough that conceptual integration theory has undoubtedly given us food for thought, and plenty of it.

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