

MODELLING SEMANTIC DERIVATION: SEMANTIC SHIFT STRATEGIES OF IRRATIONAL VOCABULARY IN ENGLISH

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The paper focuses on the semantic derivation models of irrational vocabulary – a semantic class of words that denote the situation of experience that is not based on logical reasoning or clear thinking. The study shows the characteristics of the development of an irrational vocabulary semantic paradigm and reveals semantic derivation models of irrational verbs and adjectives in the English language. It is posited that semantic derivation strategies are realised simultaneously with the changes of the situation and actants profiles. The change of a situation profile suggests the shift in the experiencer's vantage point, i.e. gnoseological (either perceptual or evaluative) position from which a situation is considered. The change of an actant profile provides for the shifts at the level of participants and their characteristics. The changes are thought to determine the types (models) of semantic shift strategies that underlie the development of the irrational words' semantic paradigms. The analysis of the semantic shift strategies of irrational verbs and adjectives in English shows that the concept of irrationality may extend to the boundaries of the internal (occurring within the hierarchy of the person's inner systems) and external (occurring within the hierarchy of the person's values) conceptual domains. The study concludes that irrational verbs and adjectives in English may apply to the following semantic shift strategies: role (reduced to the changes of the participant's type or structure), pragmatic (reduced to the changes of the participant's communicative rank), deictic (reduced to the changes of the participant's positional characteristics) and taxonomic (reduced to the changes of the participant's categorical class).

Keywords: irrational words; models; semantic derivation; semantic shift; situation; participant.

Introduction

Modern lexical semantics provides for the dynamic (i.e. generative) approach towards the study of lexical items' contents (Pustejovsky, 1996; Paducheva, 2004; Koptjevskaja-Tamm, 2016; Skarabela et al., 2017, etc.). Positing the idea of a dynamic conceptualisation of the world of discourse, such an approach reveals new perspectives in the lexical items' semantics modelling, resulting in the elaboration of semantic derivation models (Lewandowka-Tomaszczyk, 1985; Nerlich & Clark, 1988; Radden, Kövecses, 1999; Traugott, Dasher, 2005; Moghaddam & Moghaddam, 2013; Nisnevich et al., 2015; Eger & Mehler, 2016, etc.).

Semantic derivation modelling stems from a very long tradition, which underwent developments from historical (diachronic) (Darmesteter, 1886; Bréal, 1897) to cognitive (Lakoff, 1987; Sweetser, 1990), compositional (Pustejovsky, 1996; Sweetser, 1999), constructional (Goldberg, 1995; Rakhlyna, 2010), and typological semantic studies (Vanhove, 2008; Juvonen. & Koptjevskaja-Tamm, 2016).

Semantic derivation is one of the aspects that reveals the dynamic potential of lexical items, discovers the mechanisms and strategies of lexical items' extensions, displays the semantic associations that underlie the development of semantic paradigms of lexical items, etc. As a dynamic phenomenon, semantic derivation is interpreted in relation to the notion of *semantic shift*, it refers to "a pair of meanings which are linked by some genetic relations, either diachronically or synchronically, e.g. as two meanings of a polysemous lexeme" (Koptjevskaja-Tamm, 2016, p. 1).

The semantic shift strategies will be illustrated by means of **irrational vocabulary** – a semantic class of words that denote the situation of experience that is not based on logical reasons or clear thinking, cf.: *irrational, unreasonable, to dawn, to intue, to occur, superstition*, etc. Here also belong the idioms, cf.: *élan vital, race consciousness, third ear, to shoot from the hip, sixth sense*, etc.

Irrational vocabulary was an object of lexicographic studies, aiming to characterise the semantics of verbs of irrational understanding (Iomdin, 1999); of cross-linguistic studies that intended to establish the metaphoric models of verbs of intellectual activity in closely and distantly related languages (Basyrov, 2013); of cross-cultural studies that explored the subjective understandings of some cultural concepts (Altmeyer, Klein, 2016). The subjects of the analyses were the semantic and syntactic properties of the irrational verbs' participants and their semantic roles (Experiencer, Content and Source); types of metaphors representing the concept of "understanding" (metaphors of movement, attainment of the truth, light, eyesight and blow); vocabulary expressing irrationality with reference to the concepts of "spirituality" and "religion". It is not without reason, however, that irrational vocabulary disposes of its own derivational potential. The study of the potential will afford ground for revealing the shift strategies that underlie the semantic structure of irrational words.

The purpose of the paper is to characterise the semantic shift strategies of irrational words in the English language. The purpose is fivefold: to highlight the methodological background of the semantic derivation modelling; to represent the model of irrational vocabulary prototype situation; to characterise the models of irrational vocabulary semantic paradigm development; to determine the semantic shift strategies of irrational verbs and adjectives in the English language; to establish the further prospects of irrational words for semantics modelling studies.

The examples of irrational vocabulary are taken from the Oxford English Dictionary and The British National Corpus.

Methodological Background

The semantic derivation modelling provided in this paper proceeds from the assumption that the development of a linguistic item's semantic paradigm is realised simultaneously with the changes of situation and actant profiles – the outlines or contours of the resultant reconceptualisation of a situation and its participants. The change in a situation profile suggests the shifts in the experiencer's vantage point, i.e. gnoseological (either perceptual or evaluative) position from which a situation is considered. The transition into another situation (of another semantic class) is considered as an external profile change. So, the reconceptualisation of a perceptual situation from the evaluative perspective may change its profile into a situation of evaluation, cf.: *I saw it going over the horizon* → *It behoves us to see that we are not outstripped by our rivals abroad*; a situation of movement may be reconceptualised as a situation of intellectual activities, cf.: *The train from Boston is coming* → *Did you come to any conclusions at the meeting this morning?*, a situation of mental state – as a situation of physical condition, cf.: *Then calm, concentrated, and still, and slow, he lay coiled like the boa in the wood* → *The concentrated beams of the sun made the aurum fulminans go off*. The transition within the same situation (within a situation of the same semantic class) is considered as an internal profile change. So, the situation of visual abilities (faculties), cf.: *This is a landmark visible for miles along the coast* (a perceptual object is capable of being seen) may be reconceptualised into the situation of visual conditions (surroundings), cf.: *Even from Britain the Milky Way is clearly visible if you can get away from artificial lights* (a perceptual object is seen under certain conditions, at a certain time).

The changes of a situation profile may entail the extension or reduction of the participants' characteristics (the characteristics they acquire or forfeit, manifest or conceal, etc.), with the experiencer's vantage point shifting. The extension or reduction of the participants' characteristics suggests the change of an actant profile. The change of the profile determines the type (model) of the derivational strategy that underlies the development of a lexical item's semantic paradigm. The participants may change their:

a) type or structure (a role strategy), cf. the shift “perception movement” → “semiotic movement”: *flash* “to illuminate intermittently”: *The darkened sky flashed by frequent lightning* → *flash* “to display suddenly and briefly”: *She flashed her ID card at the guard*. The target situation is considered in the aspect of a participant's type change – a Percept participant acquires the status of a Signal one. Besides, the situation increases in an Addressee participant, i.e. the entity to whom a signal is addressed;

b) communicative rank (a pragmatic strategy), cf.: *smell* “to inhale the odour or scent of (a thing)”: *I smell the rose* → *smell* “to give out, send forth, or exhale an odour”: *The rose smells good to me*. The change in the target situation is determined by a shift-in-focusing strategy, i.e. the redistribution of the focus of attention from one participant onto another in the way of a diathetic shift that advances one participant in ranking and demotes the other;

c) categorical class (a taxonomic strategy), cf.: *soft* “yielding readily to touch or pressure; not hard or stiff”: *a soft pillow* → *soft* “yielding readily to emotions of a tender nature”: *He found himself quite soft on the subject*. The extension suggests the taxonomic class specification: THING → PERSON;

d) denotative status (a referential strategy), cf.: *black* “black fabric or material”: *She often dresses in black* → *black* “black clothing, esp. as a sign of mourning”: *He wore black at the funeral*. The target situation reveals changes in the participant's denotative status: attributive (non-referential) → attributive-referential;

e) positional characteristics (a deictic strategy), cf.: *twinkle* “to shine with rapidly intermittent light; to emit tremulous radiance; to sparkle; to glitter”: *A solitary light which twinkled through the darkness* → *twinkle* “to sparkle in the light”: *The diamond on her finger twinkled in the firelight*. The target situation involves the changes in the observer's vantage point: the participant “object of light emission” is conceptualised as a situational (background) object that reveals itself irrespective of the emission source.

Results and Discussion

In order to analyse the semantic shift strategies of irrational vocabulary, we shall resort to two semiological subclasses of words: verbal and adjectival. The choice is substantiated, proceeding from the assumption that the indicated subclasses have a common feature – they represent a kind of dependency holding between the predicate and its arguments (actants) within a relational (propositional) structure, cf.: “Verbs in English and other languages fall into classes on the basis of shared components of meaning. The class members have in common a range of properties, including the possible expression and interpretation of their arguments” (Levin, 1993, p. 11). “Just like verbs, adjectives consist of a form, a type, and a list of argument positions” (Dik, 1992, p. 21). From this viewpoint, the models of semantic derivation of verbal and adjectival irrational vocabularies are considered as models of a situational type that represent the strategies of the participants’ characteristics changes (vide supra).

The analysis of semantic derivation of the irrational words covers two stages: firstly, the elaboration of a prototype situation model (the model is devised on a set of common semantic components that are claimed to constitute a semantic class of words (see Rozina, 2005, p. 117); secondly, the modelling of the semantic shift strategies of the irrational verbs and adjectives in the English language.

The model of prototype situation of irrational vocabulary

The model of a prototype situation (the irrational state) is represented by such common semantic components:

1) the irrational state is conceptualised as an abrupt and somewhat unexpected act of conscience, determined by the uncontrollable changes in the Experiencer’s mind. A diagnostic parameter that substantiates the situation are the following constructions: *It dawned on me that ...*, *It flashed across me that ...*, *It occurred to me that ...*, *It struck me that ...*, etc., cf.: *It occurred to me that perhaps the creek was fordable*. It is worth indicating that the English construction *It dawned on me that ...* characterises the situation as a gradual (occurring without abrupt changes) act of conscience, cf.: *Gradually it dawned on Peter that Molland wanted more than confirmation of his decisions and to demonstrate his own honesty*. There is an evident co-association with a time periodisation of dawn approaching, cf.: *dawn* “to begin to develop, expand, or brighten, like the daylight at dawn”;

2) the irrational state may be the result of a certain mental object (a thought, guess, idea, etc.) impact, cf.: *A happy thought struck Lady Betty*;

3) the irrational state emerges at the background of a certain situation (activities) the Experiencer is involved in, cf.: *It dawned on me, while sorting out my notes that I had a disproportionate number*;

4) the irrational state may be the result of the Experiencer’s intellectual or other activities, realised within a certain time span, cf.: *It had been a couple of days before it dawned on him*;

5) the irrational state may be the result of an individual or collective act of conscience, cf.: *It occurred to us that it might be possible to prepare oxazolones*;

6) the irrational state reveals a certain degree of evidentiality (degree of truth, confidence in the adequacy of the reported information), cf.: *Clark then wrote up the experiment, which confirmed his initial brainwave*;

7) the irrational state is identified on the basis of Experiencer’s manifestations: mental, behavioural, emotional, etc., cf.: *Identifying and challenging core irrational beliefs in this way becomes a lifelong self-help strategy for the client, who gradually finds himself decreasingly prone to dysfunctional and automatic irrational thinking*.

The semantic shift strategies of irrational verbs

Prototypically, irrational verbs characterise human irrationality as a state of intuitive or instinctive contemplation, cf.: *divine* “to make out by intuition”, *grok* “to understand intuitively”, *guess* “to form an opinion from indications admittedly uncertain”, *sense* “to ‘feel’ not by direct perception but more or less vaguely”, etc.

The analysis of irrational verb valencies affords ground to claim that the conceptual domain of irrationality (the irrational state) in the English language may expand its boundaries to the following spheres:

a) significative (serving as a sign or indication of something), cf.: *What envious star when I was born divined this adverse fate?*;

b) estimative (forming conjectures), cf.: *Thomas Lurting may guess the man*;

c) apprehensive (realising smth., to be conscious of smth.), cf.: *He should sense how this spectacle belittles the theology of his fellows*;

d) behavioural (communicating sympathetically with smb.), cf.: *I was thinking we ought to get together somewhere and grok about our problems.*

operational (detecting some circumstance or entity), cf.: *This fact is sensed and stored by the multiply unit.*

One of the typical representations of semantic derivation that irrational verbs reveal in English is the model:

IRRATIONAL STATE → STATE OF OBSERVATION

Cf.: *divine 1* “to make out by intuition”: *Then, it seemed hours later, when he sensed or smelt or somehow divined that he was almost at the road* → *divine 2* “of things: to point out, foreshow, prognosticate, portend”: *All things wait for and divine him.* The model represents the concept extension, involving the changes in the Experiencer’s mental status: intuitive → probabilistic (i.e. based on supposition) comprehension. The extension develops within the participant’s type change – the Experiencer acquires the status of the Observer (a role strategy). The derivational relation is provided by the semantic component ‘the facts (information) on the basis of which the subject makes assumptions about the (future) course of an event’. The difference is that for the Experiencer the facts are localised in the inner world, whilst for the Observer – in the outer one. This situation is also marked by the changes in the Experiencer’s communicative rank (a pragmatic strategy) – the Experiencer occupies a Zero rank (see Paducheva, 2004, p. 59), cf.: *So he continued to scan the sky for the massing of heavy clouds above the moorland, which would presage the coming of the snow.*

The transition to the situation of observation changes (reduces) the degree of the Experiencer’s evidentiality on the event, suggesting the implication of its probabilistic interpretation. The interpretation is oriented on the content of a certain (stereotypical or precedent) state of affairs: behavioural (schematic), cf.: *An owl flew over the ford, banked into a beechwood and gave a last hollow call, which was lost in the dawn’s loud chorus that seemed to presage a bright hot summer’s day in this rich and placid countryside*; expressive (kinesic), cf.: *What portends thy cheerful countenance?*; natural, cf.: *Small black clouds thus appearing in a clear sky portend storms*; symbolic, cf.: *In Scotland the owl was called ‘cailleach oidhche’ (night hag), and in Wales ‘aderyn y corff’ (corpse bird). Its hooting was thought to presage death, for owls were the personification of restless spirits returning to earth to seek revenge.*

One more representation of the irrational verbs semantic development is the model:

IRRATIONAL STATE → INFERENTIAL STATE

Cf.: *guess 1* “to form an opinion at random”: *I little guessed the end He had store of friends and fortune once, as we could guess from his nice habits and his gentleness* → *guess 2* “to hit upon the answer to (a question), the solution of (a riddle, a parable); to discover by conjecture, divine”: *Sure enough it’s Barnaby – how did you guess?* The derivation is the case of a metonymic transference, with the end-point focus schema underlying it (see Lakoff, 1987, p. 424). The model represents a scenario of an inactive (intuitive) comprehension that reveals the latent or known from the previous experience information on a certain state of affairs, or its foreseen (predicted) manifestation, cf.: *She sensed him to do it.* The model represents the extension in the hierarchy of the Experiencer’s inner systems: intuitive → inferential, involving inference, comprehension. At the level of the situation participants, the extension reveals the additional information about the changes the Experiencer undergoes – the Experiencer’s status is reduced to the Experiencer-Cogniser (a deictic strategy), cf. the thematic relation of the Experiencer in (Van Valin, 2005, p. 54).

The semantic development of irrational verbs may also reveal changes in a categorical class, stipulated by the participants’ taxonomic class specifications (taxonomic strategy). One of the representations that characterises the semantic development of this kind is the model, underlying the “animal’s irrationality” state of affairs:

IRRATIONAL STATE → PSEUDO-IRRATIONAL STATE

Cf.: *sense 1* “to ‘feel’ not by direct perception but more or less vaguely”: *Queen Mary watched her closely, sensing an enemy* → *sense 2* “to ‘feel’ instinctively”: *At the last moment the hare sensed the danger and bounded off into the undergrowth.* The semantic derivation suggests transference based on denotative analogy, i.e. the denotative identity of a situation fragment (see Kustova, 2004, p. 56). The target meaning preserves the component ‘to perceive by the senses’ of the source one, though the participant’s taxonomic class HUMAN BEING → ANIMAL changes. A change also occurs in the type of a perception instrument – intuition (for people) and instinct (for animals). However, if for animals the instrument is located in their

sense organs (usually in their noses, ears, etc.), then for people – in their “emotional” organs, cf.: *But in his heart he sensed that she was lonely and ill at ease.*

The model additionally reveals the extension based on the participants’ taxonomic class specification HUMAN BEING → MACHINE. The situation becomes reduced to the Dummy Experiencer – the entity that lacks sense perception properties, cf.: *In general particle detectors operate by sensing the ionization of atoms caused by the passage of a charged particle.* The changing premises in the deictic interpretation of the situation, in which the ‘perception component’ is as if “deduced” by an observer, cf.: *Today’s PAG-ACS fast-charger technology involves intelligent and pulse-charging micro-chip controlled sensing and monitoring devices, which sense the amount of charge left in the battery, prevent heat build up, and detect lazy cells, thus maintaining balanced charging.*

The semantic shift strategies of irrational adjectives

The main function of irrational adjectives is reduced to the designation of the properties of a person’s (less often animal’s) irrational state, cf.: *irrational* “not endowed with reason”, *unreasonable* “not endowed with reason”, *intuitive* “that consists in immediate apprehension, without any reasoning”, *incomprehensible* “that cannot be grasped by the understanding”, etc.

It should be pointed out that the irrational adjectives encode the information not on the irrational state itself, but on the actual and / or potential characteristics that stand for the irrational state, cf.: *His 13 per cent flat tax fell flat, and his irrational idea of the Rev Jesse Jackson as Vice-President alienated Jewish voters while failing to attract enough blacks.*

The conceptual domain encoded by irrational adjectives in English may expand its boundaries to the following spheres:

a) mental (*of mental objects*: not in accordance with reason), cf.: *irrational ideas, images, judgement, opinion, thoughts*;

b) experiential (*of fundamental cognitive orientation*: contrary to reason), cf.: *irrational worldview*;

c) behavioural (not acting in accordance with reason or good sense), cf.: *irrational behaviour, manner; unreasonable act, action, risk; unreasoned reaction*;

d) emotional (not reasonable in emoting), cf.: *irrational anger, dislike, fear; unreasonable anxiety, aversion, panic*;

e) existential (*of essential things*: not reasonable in manifestation), cf.: *irrational nature, world*.

The semantics of the irrational adjectives, as one may notice, profile (i.e. designate) an area of ‘irrational manifestations’ in the situation concept of IRRATIONAL STATE. Each manifestation-area encodes the information on the way the Observer conceptualises (estimates) the object of observation. The manifestations are regarded as irrational as the object of observation reveals certain deviations from a rationally determined norm the Observer holds to in identifying the object. From this viewpoint, the situation of the irrational state is thought to portray some kind of discrepancy on what the Observer deduces about the observable object conduct. It should, however, be pointed out that it refers not only to the irrational behaviour (acts, actions, activities, etc.) of the object itself, but also to the background information – accompanying manifestations on the basis of which the Observer estimates (specifies) the irrational state of affairs. The manifestations are regarded as contiguous characteristics that provide the results in the target situation. The situation like that is represented by the model:

IRRATIONAL STATE → RESULTATIVE STATE

Cf.: *unreasonable 1* “not reasonable or rational; irrational”: *He was capricious, unreasonable, peremptory, and inconsistent → unreasonable 2* “not based upon sound reason or good sense”: *He contracted an unreasonable aversion towards his son.* The semantic development reveals the features of the deictic strategy based on the positional changes – the Experiencer’s contiguous activities become foregrounded. The resultative state is instantiated by the propositional actant, realising the semantic role of Situation Scope – the entity that shows what happens in a situation (see Filipenko, 2003, p. 37), cf.: *But it explained a few things – the kindness I’d thought I’d detected, his seemingly unreasonable act of firing me.* A similar strategy is realised by the adjectives of mental enlightenment, though in the aspect of the participant’s reference change, cf.: *intuitive 1* “of knowledge or mental perception: that consists in immediate apprehension, without the intervention of any reasoning process”: *The intuitive vision comes like an inspiration → intuitive 2* “that acts by intuition or immediate apprehension”: *The first intuitive glance, without any elaborate process of reasoning, would show that this would justify every extent of crime.* The semantic relationship of the source and target situations is provided by the component ‘*of a participant*: that acts by intuition or immediate apprehension’. However, if in the source meaning the participant reveals the

features of a resulting product: mental (*intuitive guess, idea, knowledge, etc.*), material or spiritual (*intuitive creativity, design, technology, etc.*), then in the target one – of a reaction-act (*intuitive gesture, move, look, etc.*).

The idea of the mental boundlessness of an object (e.g. in the state of transcendental contemplation) may generate the implication of its excessiveness (excessive manifestation): ‘incapable to mentally comprehend the object: the object is surpassing in amount or degree’. That affords ground for the model:

IRRATIONAL STATE → TRANSGRESSIVE STATE

Cf.: *unreasonable 3* “going beyond what is reasonable or equitable; excessive in amount or degree” (*transgressive* “passing beyond some limit”): *He had to wait a most unreasonable time for a judgment.* The semantic derivation, in this case, suggests a focus of attention shift from the participant’s characteristics to the characteristics itself, making it rendered unreasonable in the Observer’s evaluative systems. Thus, if the source situation indicates the deviance from a certain (behavioural) norm, cf.: *an unreasonable person* – a person that acts at variance with or contrary to reason, that is not guided by reason or sound judgement, then the target situation focuses on the unreasonableness of the deviance itself, cf.: *an unreasonable price* – an excessive, immoderate, or exorbitant price. The extension is based on the taxonomic class specification: PERSON → VALUE, which, in its turn, stipulates the changes in the time schemata (taxonomic category): Act → Correlation (Parameter), cf.: *exceed* “to pass out of (boundaries, etc.); to transcend the limits of; to proceed beyond (a specified point)”. Being culturally stipulated, the excessiveness in English is construed as a transgression that reveals the features of a ruinous or destructive consequence, cf.: *unreasonable 4* “harmful in degree or kind”: *an unreasonable restraint of trade.*

Conclusions

Semantic derivation models of English irrational words (verbs and adjectives) represent the semantic development of the irrational situation and the ways it is construed in the language. The semantic development suggests the changes in the Experiencer’s vantage point, from which the irrational situation and its participants are considered. The changes determine the types (models) of semantic shift strategies that underlie the development of the irrational words’ semantic paradigms.

The analysis of the semantic shift strategies of irrational verbs and adjectives in English establishes that the concept of irrationality may extend to the boundaries of the internal (occurring within the hierarchy of the inner systems of a person) and external (occurring within the hierarchy of the person’s values) conceptual domains.

Irrational verbs in English may apply to the role, pragmatic, deictic and taxonomic semantic shift strategies. The role strategy provides for the participant’s type change – the Experiencer acquires the status of the Observer. The pragmatic strategy suggests the changes in the Experiencer’s communicative rank – the Experiencer occupies a Zero rank in the utterance. The deictic strategy is reduced to the changes of the Experiencer’s positional characteristics – the Experiencer is reconceptualised as the Cogniser. The taxonomic strategy provides for the changes in the Experiencer’s taxonomic class specification, reducing it to the Dummy Experiencer – the entity that lacks sense perception properties. Irrational adjectives are associated with the deictic and taxonomic semantic shift strategies. The deictic strategy provides for the changes in the Experiencer’s positional characteristics – the Experiencer’s contiguous activities become foregrounded. The taxonomic strategy suggests the changes in the Experiencer’s taxonomic class specification, reduced to the shift from the Experiencer’s characteristics to the characteristics itself.

In order to ascertain an overall picture of the dynamics of irrational vocabulary and establish the way, the lexical units distribute information about different types of situations in the semantic spaces of related and non-related languages makes it expedient to carry out further research on semantic shift strategies in lexico-typological perspective.

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