ISO 24617-4 Set of Core Semantic roles

agent	
Definition	Participant in an event who intentionally initiates an event, and who exists independently of the event.
-- Source	Adapted from Dowty [1989], EAGLES, SIL, Sowa [2000] and UNL
Explanation	An agent may be animate, or only seemingly, or perceived, as animate; this is so that cases of nonhuman agency such as a robot, or an institution will not be excluded from being able to initiate an event, e.g. "GM offers rebates on its new models".
Example	"John [agent e1] built e1 the house"

beneficiary	
Definition	Participant in an eventuality that is advantaged or disadvantaged by the eventuality.
-- Source	Adapted from EAGLES, Sowa [2000] and UNL.
Explanation	The roles of beneficiary and recipient differ in that the recipient is the ultimate target of an action, whereas a beneficiary is not. They differ in that the role of recipient is the ultimate goal of an action, whereas beneficiary is not. Also, a recipient cannot take part in a state.
Example	"John sold e1 the car (for a friend [beneficiary e1])" "He gave e1 his life for his country [beneficiary e1]"

cause	
Definition	Participant in an event that initiates the event, but that does not act with any intentionality or consciousness; the participant exists independently of the event.
-- Source	Adapted from: SIL ('Causer') and Sowa [2000] ('Effector')
Explanation	Except for the lack of intentionality of the participant, this semantic role is very similar to that of the agent and in fact shares all its other properties. The role of cause can often be identified with verbs of initiation, or causation, such as: 'to cause', 'to produce', 'to start', 'to originate', 'to occasion', 'to generate'.
Example	"The wind [cause e1] broke e1 the window" "His talk [cause e1] produced e1 a violent reaction e2 from the crowd"

goal	
Definition	Participant in an event that is the (non-locative, non-temporal) end point of an action. The participant exists independently of the event.
-- Source	Adapted from Sowa [2000]
Explanation	Goal differs from beneficiary in that there need not be a clear benefit or disadvantage for the participant; moreover, only events can have a participant towards whom the action is directed.
Example	"(The executive [agent e1]) recalls e1 ((Mr Corry [agent e2] whispering e2 (to him and others [goal e2]) [theme e1])"

instrument	
Definition	Participant in an event that is manipulated by an agent, and with which an intentional act is performed; it exists independently of the event.
-- Source	Adapted from EAGLES ('Implement'), SIL, Sowa 92000) and UNL
Explanation	Some [Loos et al. 2004] would define instrument more simply as an inanimate object, which is used to implement an event. However, the semantic role of instrument can clearly also be animate (e.g. "The woman was dragged by her horse [instrument] for several meters", or even "John [instrument] threw himself at the door in a rage"), and can also take part in a state as well as an event (e.g. "The tarpaulin is tied down with rope [instrument]").
Example	"He opened e1 the door with the key [instrument e1]" "(The brick [instrument e1] [cause e2]) hit e1 the window and shattered e2 it"

partner	
Definition	Participant in an event who is intentionally or consciously involved in carrying out the event, but who is not the principal agent of the event, and who exists independently of the event.
-- Source	Adapted from FrameNet, PropBank and UNL.
Explanation	The semantic role of partner differs from that of agent principally in that the participant in questionis performing the action in accompaniment to the agent, and is not the primary focus. Sometimes patner is also known as 'accompaniment' (SIL and Sowa, 2000). UNL distinguishes the roles co-agent and partner, but this distinction is felt to be unclear.
Example	(Libyan leader Muammar Gaddafi [agent e1]) publicly [manner e1] announced e1 (his commitment e2) (to dismantle e3) (WMD programs [patient e3]) (in his country) [location e3] [theme e1] [purpose e2]) following (negotiations e4 (with US and UK authorities [partner e4]) [reason e1])

patient	
Definition	Participant in an event that undergoes a change of state, location or condition, that is causally involved or directly affected by other participants, and exists independently of the event.
-- Source	Adapted from EAGLES, Sowa [2000] and UNL.
Explanation	Patient is distinguished from the semantic role of theme by that it is structurally changed or affected by the event.
Example	(White women [agent e1] [agent e2]) serve [e1] (tea and coffee [theme e1]), and then wash [e2] (the cups and saucers [patient e2]) (afterwards [time e2])

pivot	
Definition	Participant in a state that is characterised as being in a certain position or condition throughout that state, and that has a major or central role or effect in that state. A pivot is more entral to the state than a participant in a theme role.
-- Source	Webster New Collegiate Dictionary [1976]
Example	(Vicar Marshall [agent e1, pivot e2]) admits [e1] (to mixed feelings [e2] (about this issue [theme e2]) [theme e1])

purpose	
Definition	Participant that represents the set of facts or circumstances that describe what an agent wishes or intends to accomplish by performing some intentional action.
-- Source	Adapted from EAGLES and UNL
Explanation	The notion of purpose implies intentional action. This property of purpose makes it impossible to have this semantic role in a state. The role of purpose differs from that of reason in that purpose describes the aims of an agent, whereas reason indicates why the event is carried out or the state is true. Contrast the following examples: (a) "The authorities extradited him to the US for drug trafficking [reason]" and (b) "The authorities extradited him for trial [purpose] in the US".
Example	"(The robber [agent e1]) (tied e1) Harry [theme e1] (to the chair [final-location e1]) ((to stop e2) him [theme e2] (from getting away [purpose e2]) [purpose e1])"

reason	
Definition	Participant that represents the set of facts or circumstances explaining why a state exists or an event occurs.
-- Source	Adapted from Sowa [2000] ('Matter') and UNL
Explanation	The role of reason can be distinguished from that of purpose, in that purpose indicates the objective or goal of an agent that acts intentionally. However, the role of agent is not applicable to states. Reason is also different from manner and method in that reason describes why the event is being carried out, while manner and method describe how it is being carried out.
Example	"People love giant pandas because they look like teddy bears [reason]" "Due to the spray from the hose [reason] the ink ran down the page before she could read it."

result	
Definition	Participant in an event that comes into existence through the event. It indicates a terminal point for the event: when it is reached, then the event does not continue.
-- Source	Adapted from Sowa [2000]
Explanation	Result is the completed point of a process, and unlike goal is dependent upon the event for its existence.
Example	"(Within the past two months [duration e1]) (a bomb [cause e1]) exploded e1 (in the offices of El Espectador in Bogota [location e1]), (destroying e2 (a major part of its installations and equipment [patient e2]) [result e1])"

setting	
Definition	Participant that represents a set of facts or circumstances of the occurrence of an event or a state.
-- Source	Adapted from EAGLES ('Scene'), UNL ('Condition') and FrameNet ('Circumstances')
Example	"(A number of medical and agricultural research centers [pivot s1][instrumente1]) had s1 (the potential [attribute s1]) to be used e1 (in BW research [setting e1])."

source	
Definition	Participant in an event that is the (non-locative, non-temporal) starting point of an event. The source exists independently of the event.
-- Source	Adapted from Sowa [2000]
Example	"(Eaton [beneficiary e1]) earned e1 (from continuing operations [source e1])"

theme	
Definition	Participant in an eventuality that in an event is essential to the event taking place but does not have control over the way the event occurs and is not structurally changed by the event, and in a state is characterized as being in a certain position or condition throughout the state, and is essential to the state being in effect but not as central to the state as a participant in a pivot role.
-- Source	Adapted from EAGLES, Sowa [2000] and UNL ('Object')
Explanation	The Theme role is distinguished from the Patient role in that it is not structurally changed by the event or in the state in which it occurs.
Example	"(One man [agent e1]) wrapped e1 (several diamonds [theme e1]) (in the knot of his tie [final-location e1])"

time	
Definition	Participant that indicates an instant or a time interval during which a state exists or an event takes place.
-- Source	Adapted from EAGLES, SIL, Sowa [2000] and UNL
Explanation	Just as with location, time is divided into three other subroles: beginning, end and duration.
Example	"(Right now [time e1]) ((about a dozen [amount e1]) laboratories [agent e1][agent e2], (in the U.S. Canada and Britain [location e1]), (are racing [e1]) (to unmask e2 (other suspected tumor-suppressing genes [theme e2]) [purpose e1]"

manner

Definition	Participant that represents the way or style of performing an action or the degree/strength of a cognitive or emotional state.
-- Source	Adapted from EAGLES and UNL
Explanation	The role of manner differs from instrument in that manner describes an event as a whole, whereas instrument characterises one of the components of event or state; manner is an abstract thing whereas instrument is a concrete one (the latter also differentiates instrument from means and method). The role of manner includes secondary effects (quietly, loudly), and general descriptions comparing events or states (in the same way). It may also indicate salient characteristics of theme, experiencer, agent, etc., e.g. coldly, deliberately, eagerly, carefully, etc.
Example	"The tiny stick (was fastened s1) tightly [manner s1] to his wrist."

medium

Definition	Participant that represents the physical setting, entity or channel used by an agent (or agents) in an event or process.
-- Source	Adapted from Sowa [2000]
Explanation	As a medium implies the presence of an agent, because it defines the physical means of conveying an action, this semantic role is not relevant for states. There is some discussion about the difference between the semantic role of medium and that of instrument. To illustrate the problem, consider the example: "Joanna peeked at John through the binoculars". Here 'the binoculars' could be said to be the instrument used to perform the action of peeking, whereas 'through the binoculars' could be said to be the medium. The main difference is that while medium is only ever a semantic role for a participant in an event, instrument can be present for a state as well.
Example	"The students (heard e1) the news on (the radio [medium e1])"

means

Definition	Participant in an event that represents a procedure for performing an action in terms of component steps, or a methodology by which an intentionalact is performed by an agent. A means does not necessarily exist independently of the event.
-- Source	Adapted from UNL
Explanation	Means differs from instrument in that means describes possible activities and methods for dooing something, which may have no existence independent of the event, while instrument describes previously existing tools. This distinction is exemplified by: (a) "I sliced the cucumber in 1/8th inch slices with a knife [instrument]" and (b) "I sliced the cucumber in 1/8th inch slices by marking the intervals with a ruler [means]". Sometimes this distinction is not really very clear-cut: (c) John ate the sushi with chopsticks [instrument]" and (d) John ate the sushi using chopsticks [means?]".
Example	"The mayor delayed e1 the ribbon ceremony (by pretending to be ill [means e1])" "He had to button e1 his sleeve (by holding e2 the cuff in his mouth [means e1])"

location

Definition	Participant that represents the place where an event occurs, or a state is true, or a thing exists.
-- Source	Adapted from EAGLES ('Place'), SIL ('Locative'), and Sowa [2000]
Explanation	
Example	"Here [location e1] is s1 (an example [theme s1])" "She was cooking e1 (in the kitchen [location e1])"

Initial-location

Definition	Participant in an event that indicates the location where an event begins or a state becomes true; exists independently of the event.
-- Source	Adapted from EAGLES, Sowa [2000] ('origin') and UNL ('Initial Place')
Example	"(Half way out of the harbour [initial-location s1]) the sea becomes s1 really deep"

final-location

Definition	Participant in an event that indicates the location where an event ends or a state becomes false; exists independently of the event.
-- Source	Adapted from EAGLES, Sowa [2000] ('Destination') and UNL ('Final Place')
Example	"(One man [agent e1]) wrapped e1 (several diamonds [theme e1]) (in the knot of his tie [final-location e1])"

distance

Definition	Length or extent of space.
-- Source	Adapted from WordNet
Example	"missiles [pivot s1] (capable s1) of (travelling e1) (more than 300 km [distance e1])"

duration

Definition	Length or extent of time.
-- Source	Adapted from WordNet
Example	"Terry [agent e1] jogged e1 (for two hours [duration e1])"

initial-time

Definition	Participant that indicates when an event begins or a state becomes true.
-- Source	Adapted from EAGLES, Sowa [2000] and UNL
Example	"(Harry [agent e1]) (teaches e1) (on Friday (from 14:45 [initial-time e1]) (to 12:30 [final-time e1]) [time e1])"

final-time	
Definition	Participant that indicates when an event ends or a state ceases to be true.
-- Source	Adapted from EAGLES, Sowa [2000] and UNL
Example	"(Harry [agent e1]) (teaches e1) (on Friday (from 14:45 [initial-time e1]) (to 12:30 [final-time e1]) [time e1])"

path	
Definition	Participant that indicates an intermediate location or trajectory between two locations , or in a designated space.
-- Source	Adapted from Sowa [2000]
Example	"(The baby [agent e1]) crawled e1 (across the floor [path e1])"

amount	
Definition	Participant denoting a quantity of something else than time or space.
-- Source	Adapted from PropBank ('Extent'), FrrameNet ('Amount'), UNL ('Quantity'), Sowa [2000] ('Amount', 'Measure') and EAGLES ('Quantity')
Example	"(The euro [theme s1]) (is worth s1) (nearly one and a half dollar [amount s1])"

attribute	
Definition	Property of an entity or entities.
-- Source	Adapted from FrameNet ('Parameter'), UNL, Sowa [2000], EAGLES
Example	"(We [agent e1]) will (paint e1) (the front door [theme e1]) (dark green [attribute e1])"