1. Differences between attitudinal objects and mental states and events:

1. truth conditions:
   (1) a. John’s thought that S is true.
       b. * John’s thinking that S is true.
   (2) a. John’s assertion is true.
       b. * John’s asserting is true.

2. similarity relations:

(6) a. John’s thought was the same as Mary’s.
    b. John’s claim was the same as Mary’s.
    c. John’s question was the same as Mary’s.
(7) a. * John’s thinking was the same as Mary’s.
    b. * John’s claiming was the same as Mary’s.
    c. * John’s (action of) asking a question was the same as Mary’s.
3. relation to time:

(8) a. John’s thought might have occurred to him earlier than it did.
   b. *John’s thinking might have occurred / taken place earlier than it did.

2. A more general difference

Twardovski (1912): distinguish actions from products

[1] physical actions – physical products:
walking – the walk, racing – the race, jumping – the jump, dancing - dance

walk, race, jump, dance:
‘do not bring to force the aspect of action, but bring to force a different aspect, the
‘phenomenal’ or ‘static’ aspect’
‘in speaking of the shout, we do in fact abstract from the activity of shouting, treating the
shout as an acoustical phenomenon’

[2] mental actions – mental products or psycho-physical products
thinking – the thought, judging – judgment, intending – intention

[3] psychophysical actions – psychophysical products
screaming – scream, speaking - speech, lying - lie

non-enduring products: exist only for as long as the activity that yields them:
wills, screams, thoughts, thoughts, beliefs
enduring products: inscriptions, drawings, paintings, …

A more general pattern:

[1] only products have satisfaction conditions, representational properties
[2] difference in similarity relations:
Distinct products may be (exactly) similar but the corresponding actions generally are not:

(9) a. ?? John did the same walking as Mary.
   b. John did the same walk as Mary.
(10) a. Sue’s dancing was the same as Mary’s.
    b. Sue’s dance was the same as Mary’s.
(11) a. ?? John’s screaming was the same as Mary’s.
    b. John’s scream was the same as Mary’s.

[3] relation to time

(12) a. John could have taken his walk earlier than he did.
    b. *? John could have done this walking earlier than he did.

A further difference: only products have gestalt properties and are evaluated as a whole
Activities are evaluated in terms of their temporal parts only:
Mary’s dance was unusual – Mary’s dancing was unusual.
Our walk was interesting - Our walking was interesting
Her speech was impressive – her speaking was impressive

3. Construing events in terms of tropes

first option:
Events as instances of dynamic properties: being P at t and Q at t’, t’ subsequent to t, P and Q
incompatible:
Gives wrong results concerning predicates applicable to events:
(13) a. John’s becoming ill was sudden / unexpected / happened very quickly.
    b. # John’s healthiness and subsequent illness was sudden / unexpected / happened very quickly.

second option:
Events as instantiations of temporal transition relations involving tropes:
(14) The transition of John’s healthiness to John’s illness was sudden / unexpected / happened very quickly.

Events as second-level relational tropes:

first option:
The event that is the change from a being P to a being Q:
the instantiation of the transition relation by two tropes: the instantiation of P in a and of the
instantiation of Q in a.

**explaining event properties:**
- Why no truth conditions? Transitions are not true or false …
- relation to time: temporal relations are constitutive of events

**problem:**
similarity relations:
Similarity among events requires only that that same relation (transition) is instantiated, not
that the bearers (the tropes involved) are the same. Thus, all events would come out exactly
similar!

**second option:**
Events as instances of transition relations involving particular property attributions in times:
A simple case:
The event that is the change from a being P to a being Q:
the instantiation of $\lambda t \left[ P^t(a) \& t < t' \& Q^{t'}(a) \right]$ in subsequent times $t_1$ and $t_2$.

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### 4. Attitudinal objects

Attitudinal objects as first-level tropes instantiating the attitudinal relation, in *some way*
accounts for some of the properties of of attitudinal objects:
- perceptual properties, causal, evaluative properties
- truth conditions: thoughts, assertions inherently ‘aim at truth’, other attitudinal
objects have other inherent satisfaction conditions

**first option:**
Attitudinal objects as relational tropes:
John’s belief that Bill likes Mary: the instantiation of the multigrade belief relation in John,
the liking relation, Bill, and Mary

problems:
1. ontological commitment:
Relational tropes, with multiple bearers, treat propositional constituents treated as objects

2. wrong result with respect to similarity relations:

Tropes instantiating the same (natural) property are (exactly) similar

(29) a. The color of the car is exactly the same as the color of the table.
    b. John’s attitude toward Mary is exactly the same as Mary’s attitude toward John.
    c. John’s relation toward his teacher is the same as Mary’s relation toward her father.

Similarity among attitudinal objects requires sameness of content:

(30) a. * John’s belief that it will rain is the same as Joe’s belief that Mary likes Bill.
    b. John’s belief is the same as Mary’s belief (they both believe that S).

**second option:**

attitudinal objects as quasi-relational tropes:

attitudinal objects as instantiations of properties involving propositional constituents (the property of believing that Bill likes Mary)

the difference between relational tropes and quasi-relational tropes:

(15) a. the relation between John and Bill
    b. John’s relatedness to Bill

(16) a. the love between John and Mary.
    b. John’s love for Mary

explaining remaining properties:

- similarity relations: exact similarity requires same attitudinal relation involved as well as same propositional constituents
- time of occurrence contingent: instantiation of complex property in the object, at whatever time the property may be instantiated: time not constitutive of attitudinal objects

extending the account of attitudinal objects to other products, i.e. physical products:

walking, dancing, screaming:

temporal transitions: instantiation of relation among times in times

walk, dance, scream:
instantiation of the property of an agent to have particular properties at subsequent times, in a particular agent

simple example: \( \lambda x[\Box_t \Box t'(P^t(x) \& Q^t(x) \& t < t')] \)

similarity relations, relation to time explained as with mental products

explaining gestalt properties:

complex property of an agent may include higher-order relations in its definition

this is not possible for activities, conceived of as instances of the temporal transition relation in different times