smelled or seen), immaterial (they are not physical), inseparable (their production cannot be separated from their consumption), heterogenous (they are difficult to standardize), perishable (they cannot be used at a later time), not storable (they cannot be stockpiled), not transportable (they cannot be moved from place to place), not accumulative (one cannot have two of the same service) and so on. Ordinary objects that are heterogenous and perishable are common. Objects that are intangible and immaterial are not, particularly on a modern materialist basis (except perhaps mathematical objects and abstractions). Thus, the suggestion that services are intangible and immaterial makes them sound ghostly and otherworldly.

Hill (1977) offered a radical ontological shift in our view of services. According to Hill's theory, services are changes (that is, events). Whatever else may be wrong with Hill's description of services, the notion that services might fall into a different ontological category from goods was groundbreaking. Whereas objects exist, events occur. Objects have relatively clear spatial boundaries, but their temporal boundaries are less clear; events are just the opposite. Objects can move, events cannot. The idea that services are events rather than objects solves some of the apparent mysteries about services: events are intangible, immaterial, perishable, not storable, not transportable and not accumulative.

More recent theories of services have observed that services are of a more specific ontological type than changes or events. What distinguishes actions from mere events is intention—actions are deliberative, purposeful changes. The intents, the purposes of the actors matter. Indeed, etymology suggests that a service is always associated with an act of attention and care towards the other. The term 'service' stems from the Latin verb "servire," which is associated with attending to, caring for, serving or adapting to another. This notion of services as actions seems to have received its first modern expression in the claim that "a service is a deed, a performance, an effort" (Berry, 1980, p. 30).

Still more recent theorists have privileged the role of co-production in the definition of a service. Services, it is claimed, are characterized by providers and beneficiaries working together to produce a change. The view that services are co-produced actions therefore brings the notion of joint intention into the domain of services. That is, the characteristic feature of services is

Service Ontology

Services have long been thought of as a type of goods (that is, objects). The earliest descriptions of services as constituting a "tertiary sector" distinct from extraction/agriculture and manufacturing did not distinguish services by their type, only as a residual of units of economic exchange left over when natural resources, agricultural produce and manufactured products were subtracted.

Services subsequently came to be thought of as objects of increasingly bizarre types. Services, it was thought, are goods (again, objects) that are intangible (they cannot be touched, tasted,

not merely that they are actions but that they are joint actions by two or more parties. The intention that characterizes a service action must be shared between the provider and the user of the service. According to anthropologist Michael Tomasello (Tomasello and Carpenter, 2007), shared intentionality distinguishes human work from animal work. Many animal species, particularly the most intelligent ones, can work together or follow commands. Only humans have empathy and the ability to put themselves in the place of others. Thus, an activity is more of a service insofar as it is coproduced by actors who can place themselves in each others' positions.

It is worth remarking that, as revolutionary as service-dominant logic may be in certain respects, it takes precisely the position that we have been advocating-that services are actions and goods are objects. Vargo and Lusch actually give a definition of services that aligns with our claim that services are actions. They "define services as the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself" (2004, p. 2). These "deeds, processes, and performances" are actions. Lusch and Vargo do not identify services (actions) and goods (objects). Rather, they take the position that "a good is an appliance used in service provision" (2006, p. 282). Goods, in other words, are objects.

Actually, this notion that a good is an object that can be used for providing services captures only half of the relationship between goods and services. Goods and services are intimately related in two ways. A good, as Lusch and Vargo observe,

is an object that affords a variety of potential services. An automobile, for example, could be a part of services such as taking a family vacation, commuting to work, transporting heavy objects or impressing the neighbors. In addition, though, the process of producing a good is a service. It is an activity taken with the intention of producing something of value. Increasingly today, it is a joint activity, insofar as manufacturers involve customers in designing and critiquing their products. The activities of designing and manufacturing goods, we might say, are embedded in the objects sold as goods. However, these two service-related aspects of goods, the embedded services and the latent services (Figure 1), do not make the good itself a service. An object does not become an action, nor does an action become an object. The ontological natures of goods (as objects) and services (as actions and therefore events) remain distinct.

Many theorists have advocated for the idea that there is a continuum between goods and services. There is some truth in this idea, but it must be tempered by a careful consideration of the ontological differences between the two. Given that goods are objects and services are actions, it is hard to see how they could be commensurable. Although there are some examples in physics such as the dual nature of light as particle (object) and wave (event)-our ordinary conceptions of objects and events do not allow for them to be interchangeable. We can, however, see the duality between goods and services as a matter proportions-services are primarily about joint actions, whereas goods are primarily about exchanging objects (Figure 2). It would seem that



Figure 1 A good (object) as a nexus between embedded services (manufacturing actions) and latent services (potential actions)



Figure 2 Market offerings as mixes of goods (objects) and services (actions)

there is one asymmetry, though. In many services, no good is exchanged. When I get a haircut, I benefit from a service, but I do not receive a good. By contrast, in every exchange of goods, there is also an exchange of services (both the embedded services that created the object of exchange and the latent services whose potential is embodied in the object).

AARRE LAAKSO AND LUIS RUBALCABA

References

- Berry, L. L. (1980), "Services marketing is different", *Business*, 30 (3), 24–29.
- Hill, T. P. (1977), "On goods and services", Review of Income and Wealth, 23 (4), 315–38.
- Lusch, R. F., Vargo, S. L. (2006), "Service-dominant logic: reactions, reflections and refinements", *Marketing Theory*, 6 (3), 281–88.
- Tomasello, M., Carpenter, M. (2007), "Shared intentionality", *Developmental Science*, 10 (1), 121–25.
- Vargo, S. L., Lusch, R. F. (2004), "Evolving to a new dominant logic for marketing", *Journal of Marketing*, 68 (1), 1–17.